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California Associated Farmer Section

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BEAUTIFUL JAPANESE FLOWERING CHERRY

The time for planting all kinds of deciduous trees, both fruit and ornamental, as well as shrubs, for home grounds is here. Our illustration, a spray of Japanese Flowering Cherry, shows the form of the flower and style of growth of a single spray, but gives no adequate idea of the beauty of a tree in bloom. The color of the blossoms is an exquisite pink, shaded and blended with white. For planting among other ornamental trees and shrubs this cherry is not surpassed in beauty.

THE FLOWER GARDEN

A GREENHOUSE.

How to Get One.

By Maggie Downing Brainard.

A GREENHOUSE, how I long for one!

But, what's the use; husband's salary barely makes ends meet; no prospects of a fuller purse: a greenhouse is out of the question."

Not one bit of it. The greenhouse is yours if you will it so.

Let the household purse do its duty, don't bother husband, but go to work yourself.

Begin with saw, hammer, nails, and a few boards, a few bits of glass and a wire screen as the woman did I shall tell you about.

But you must start with a spirit to conquer, keep it up, work; in time, the greenhouse is yours.

Listen, profit by the listening.

Some 20 years ago, Mrs. Ed Schlaudt, a woman broken in health was advised to leave the east and seek the healing air of California in hope of a partial recovery.

"Live out of doors as much as you can," was the slogan; so coming to San Jose, she and her husband bought a small cottage with limited grounds near the suburbs.

In the small front yard, Mrs. Schlaudt spent the greater part of every day hoeing out the weeds and cultivating what few plants were there.

Strength and health came back and with the improvement a longing for the possession of more plants than the slender purse could afford.

This craving brought her to studying floriculture in a remunerative sense.

With this idea in view, she decided to try the greenhouse plants first.

She must have a greenhouse. This she could not afford. Nothing daunted she contrived the idea of a substitute. Crystallizing the plan, she began putting it in effect by making a stout stick redwood box, two and a half by four feet in dimensions and sinking in the ground some two feet, back higher than the front, covering with a window screen frame, in which she put bits of glass. Whenever the box was opened she had to carefully lift the screen from its place and rest it on the ground.

In this little-mother of a greenhouse she raised hundreds of delicate plants for which she found ready sale.

On This Bedrock.

This undaunted woman began the foundation of a phenomenal success in floriculture.

Ever spare moment from the care of

Every spare moment from the care of her husband, her two little children and her house work, was devoted to a study of plants and seeds; how to grow them in the limited space she had to work in.

She learned to make her composts, how and when and where to use them; to discern the difference between the sucking and eating insects; the ways of ridding the plants of the pests without hurting the plants; best methods of treating plants diseases, of pruning and when, of planting and when; in fact, she made herself, to Middle California what Mrs. Theodosia B. Shepherd was to the south.

And all this time, her dimes were growing to dollars, so that in two years from the making of the little mother box, she had built,

Two Splendid Glass Greenhouses,

One 52 feet by 18 feet in dimensions, the other 48 feet by 12 feet; equipped with steam apparatus and fitted to overflowing with marketable plants for pot and outdoor culture.

The little outside plot, on which she had done her first work, 147 feet by 46 feet, she devoted to the best varieties of roses, carnations, chrysanthemums, etc.

The wonderful progressive spirit of the woman growing with the return of perfect health, knew no limit.

But, let me tell you, all this time, her life was not an easy one.

The usual obstacles in the way of progression, which one has to encounter daily were hers; but, she stood her ground and fought her battles like a heroine, so that in eight years from the start, the old house had disappeared with a neat two-story home in its place, surrounded by more ground.

Over Two Thousand Seven Hundred and Sixty Feet,

Were under glass, and the art of making and furnishing floral pieces for public occasions was in full popularity.

Today, Mrs. Schlaudt owns four lots, a handsome home handsomely furnished and,

Six Large Glass Greenhouses,

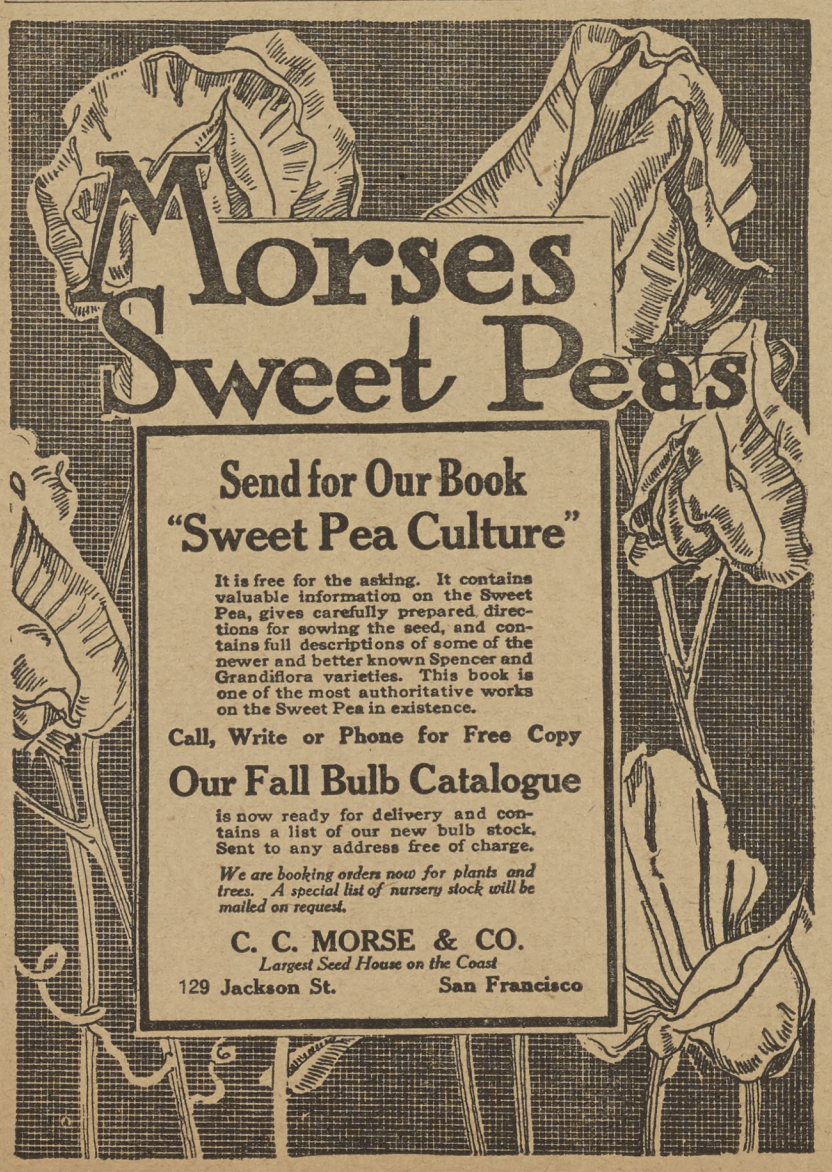
Covering a space of seven thousand two hunderd square feet (?) with a neat office and roomy working and packing apartment in the center of the group.

Next year will come another extension of the greenhouse space.

It is fun to hear this woman of such courage tell of how proud she felt as she first stood in her first glass greenhouse built through her own exertions.

My, but it is glorious even to think of such womanly pluck; such strength of character, such endurance; and such a trying of patience as was hers, evinced in the daily growth of such achievements with a beginning in a little box of dirt, 2 1-2 by 4 feet. The greenhouse is yours, if you will it so. Try and see.

MRS. ED SCHLAUDT'S SIX GREENHOUSES THE OUTGROWTH OF THE DRY GOODS BOX BELOW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WONDERFUL ROSE GARDENS.

IN the outskirts of the city of Lyons, in sunny France, are the most wonderful rose gardens in the world. There a great flat stretch of land is set out in countless rows of the queen of flowers, all a-bloom, variegated in color and perfume. These rows, in a single garden, are often a hundred feet in length, with not more than 18 inches of space between ows and each plant in a row is not more than a foot from its neighbor.

There, in this floral paradise, the gardeners strive to propagate new kinds of roses by the process of grafting one species upon another. Only the other year one gardener produced a new rose of a rare coral tint and luxurious perfume. One cannot gaze upon this wondrous scene without breathing a fervent thanksgiving that there are in the world such beautiful things as roses.

If you begin the use of the sprinkler in the garden, keep it up till a shower falls, or baking of the soil will injure the plants.

FLOWER PHILOSOPHY.

By Philip Henderson.

A GOOD way to become expert in raising flowers is to watch nature's methods closely. In the cool, moist atmosphere of either spring or fall, particularly if a rain be followed by several days of foggy or cloudy weather, the tiny plants of petunias, delphinus, columbines and many other varieties of flowers, will be found coming up by the thousands underneath the old plants and here lies the lesson in starting flower seeds.

If you can create artificial conditions as near like those I describe that is, not too warm, but moist and shady, for several days at a time, then you may start almost any of the fine seeded flowering plants.

Drying winds and hot sunshine are the elements that must be avoided in starting fine flower seeds. Seeds may be started in midsummer too, but look out! You may have the moisture and shade, but unless they are watched almost hourly and aired at the proper time they will run up to such a spindling height that they will not bear their own weight and topple over.

Taste in Flowers—Everyone has his or her favorite flower and like other people I have mine and I will give some of my reasons. For instance, I do not care for dahlias because they are such a poor flower for cutting, as they fade in a day and besides they have no fragrance. It requires a lot of work to grow dahlias; that is, fine ones, and then, like chrysanthemums, they are only for a little while in the fall.

I will admit that fine specimens of dahlias or chrysanthemums are beautiful to look at but they have no fragrance, which is a serious defect in my estimation.

A BEGINNING IN FLORICULTURE.

For decorative purposes the crysanthemums are far preferable to dahlias,

Some Flower Requisites—To me a flower which is beautiful in form and coloring, is fragrant, and lasts well when cut, is far better than any other, and there are so many of them that may be grown in our beautiful California climate that it seems almost needless to spend time on other varieties.

However, we cannot get all these requisites and also have a flower which blooms for a long season, but improvements are being made all of the time. There are now fine beautifully colored peonies that are quite fragrant, and last a long time when cut. Also some varieties of German iris.

One advantage these two varieties of flowers have is the ease with which they grow and increase in beauty. Of course, they must be divided occasionally to secure the finest flowers, but their hardiness under neglect makes them a favorite with many flower lovers, and as to color they furnish an almost endless variety.

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California Associated Farmer

HORACE GREELEY KEESLING, Editor.

DEPARTMENT EDITORS:

Samuel E. Watson, State Inspector of Dairies—Dairy and Live Stock.

Katherine Dunlap Cather—Children's Page.

Amanda M. Miller—Home Dressmaking.

CONTRIBUTORS:

Edward Berwick, Pacific Grove.
Leonard Coats, Morgan Hill.
Frank McKevitt, Sacramento.
Dr. F. Franceschi, Santa Barbara.
J. P. Dargitz, Sacramento.
J. G. Gilstrap, Ceres.
Earl Mills, Oroville.
G. A. Lyons, Lakeport.
George Marchbank, Madera.
J. R. Banks, Ukiah.
N. H. Wilson, Merced.
F. R. M. Bloomer, Sacramento.
William Garden, Stockton.
C. W. Beers, Santa Barbara.
George A. Lamiman, Anderson.
C. R. McBride, Vacaville.
A. G. Shulz, Porterville.

The Editor of the Farmer invites correspondence from any reader upon any subject that may interest country people, or have a bearing up improvement of conditions in rural life.

All departments of this paper are open for the approval or disapproval of its readers and a free expression of opinion is invited.

SCHOOLHOUSES CIVIC CENTERS.

ON the Educational Page of this issue will be found assembly bill No. 16, which is an act providing for the free use of all public schoolhouses as a center where the people of the district or ward in which each schoolhouse is located may meet and engage in recreational activities or discuss subjects or questions which in their judgment may appertain to their educational, political, economic, artistic or moral welfare.

From the standpoint of social and moral betterment, and of rural communities in particular this bill is of far-reaching importance.

As will be seen by a careful reading of the bill these meetings will be under the direction of the board of trustees and by reason of this supervision, the trustees being elected by reason of their fitness for the position they occupy, will see to it that nothing purely frivolous or discreditable will be allowed at the schoolhouse.

Also as the law provides that lighting, heating, janitor's services and the presence of a supervising officer, if needed, shall be absolutely free, the calling together of a meeting for any purpose will be simplified, as no preparation will be necessary to provide for the expenses of the meeting.

Country people, as a rule, do not see enough of each other and do not have a good understanding of matters which may be working for good or evil in their community. By meeting together, talking together and threshing out questions upon which great difference of opinion exists, the people of a district will usually find that they are not far apart in their ideals or desires and that by a little compromise all may pull together for the public good instead pulling apart to the hurt of all concerned.

In communities where a grange is organized live questions of a public nature are usually taken up, discussed and well understood, but every district does not have a grange and for that reason alone the law making the schoolhouse the center for all public gatherings is a good one.

Heretofore, the use of the schoolhouse as a civic center has had its advocates and opponents, and curiously enough in some instances the school trustees have been among those who opposed the use of the schoolhouse for public meetings. In many districts the schoolhouse being the only place where a public meeting might be held and that being denied it became necessary to have the meetings at private houses or forego them altogether.

This new order will allow the organization of clubs for various purposes, among them district improvement clubs whose purpose may be to work for improvement along one or many lines and although with a small membership great results may be attained by calling meetings to discuss and view from all sides any proposed improvement.

It is evident that nothing but good will come from this new law and all who are working for the highest welfare of their district should use this opportunity with vigor and wisdom to the end that we may obtain the greatest benefit therefrom.

STATE FRUIT-GROWERS CONVENTION.

CONVENING at San Jose Tuesday, December 2, the forty-third annual assembly of fruit-growers will occupy three days in considering matters of great importance to the state and the fruit industry.

This meeting will be held under the auspices of the state commission of horticulture, Dr. A. J. Cook presiding at the initial meeting Tuesday morning. That this convention will prove to be a profitable one is evidenced by the list of men prominent in horticultural knowledge who will address the meeting and participate in its discussions.

Deciduous fruit and nut culture, as well as citrus fruit questions, will be considered, and the very important agricultural balance wheel, alfalfa, and the much-hoped-for financial governor, Rural Credits, will come in for due consideration.

Altogether, the program which is printed elsewhere, seems to be an exceptionally good one and merits an attendance upon and participation in by all horticulturists who may conveniently attend.

GOOD ROADS AND BONDS.

WE have devoted a whole page to the letters from Mr. F. J. Currier and Mr. F. H. Babb upon this very important question now before the taxpayers of California.

The average farmer is at this time in a very peculiar frame of mind. He favors good roads. He must have good roads over which to haul his produce to market. That part of the question is settled not to be reconsidered at any future time or called up for discussion at any mass meeting, grange, improvement club or district schoolhouse meeting. But how to build the roads for future use, and how to pay for them at least cost to himself or his heirs is not settled by any means.

The first part of his dilemma seems to be in an experimental stage. The state of California is now spending $18,000,000 and interest—which he and his heirs must pay their share later—in experimental work in various parts of this big state. From various and well authenticated reports from some sections he learns that at least a part of this experimental roadbuilding has failed to make good. Whether any of it will last until the bonds are paid is exceedingly uncertain. Some of it is certain to fail to withstand ordinary wear for more than a year or two.

This farmer and taxpayer has average intelligence and wisdom and is somewhat fearful that more money will soon be needed to complete our state road system and rebuild those parts of it which have gone to pieces, and that his children will soon be called upon to pay from their inherited estate for public roads that have been of no use to them and will further be taxed directly or by bond issue to repair and rebuild our public roads.

If this condition materializes as he is fearful that it may, will he be justified in voting for more bonds to build more roads that he has no guarantee will outlast the life of the bonds?

A discussion of this subject briefly is invited from readers of The Farmer who may give their interested property owning and taxpaying friends more light upon roadbuilding and road taxes.

WHAT IS THE REMEDY?

AN IDAHO potato-raiser, wishing to determine how much the consumer was paying for his potatoes, put a note in the bottom of each bag asking the consumer to kindly write him, stating the price paid for the potatoes.

The potatoes were sold wholesale at 55 cents per sack, or 35 cents profit to him. In due course of time letters began to arrive stating prices ranging from $1.50 to $2.50 per sack. That the consumer was paying three or four times as much for his potatoes as he received from the wholesaler and that a profit was made somewhere between his farm and the consumers house of from $1.45 to $1.90 or from four to seven times as much as his own was a surprise to this potato-grower.

While this may be an exceptional case, the fact still remains that growers and consumers, as a rule, are too far apart and the cost of handling is out of proportion to the cost of production.

Co-operation in buying and selling has remedied this to some extent in a large way, but there remains the products of the small grower—a factor that will become larger and larger as the years go by—that will continue to take the most expensive route to market unless the growers wake up to the possibilities offered them by the public markets, but as more often called free markets—some of which are now in operation in the larger towns in California.

Ordinarily the large grower will not see his way to taking a load of his produce to a market where he must spend several hours in disposing of it as his time is too valuable, neither will he send a man and team, for they are needed in moving the crop from orchard to cannery or drier, or shipping to the larger markets, or to the eastern states but the small grower must be reckoned with and he it is who, with his variety of fruit and garden produce, may well afford to go to the public market where he will meet his customer face to face and both be benefited, the grower in receiving a fair price for his products, and the consumer by obtaining those products fresh and good at a less price than he is charged by the city retailer.

AS TO TREES BLOOMING IN THE FALL.

WE have been asked what effect this fall blooming of fruit trees will have upon the crop next year and the vitality of the trees.

Without data to illustrate an answer we must draw conclusions by comparison.

As was stated in these columns some weeks ago the application of water to dormant trees or plants—which have become dormant by lack of moisture—while the earth is yet warm causes them to revive and start into growth and no doubt if by some lapse of nature's laws the following season should be summer instead of winter the growth and blossoming would continue and fruit would be formed and matured, and also new fruit buds be formed for the following season's fruitage.

But instead of growing warmer the earth and air gradually become cooler and the growth and blossoming must cease without accomplishing any good results.

On the contrary the fruit buds from which these blossoms have appeared, have accomplished their mission, but the new buds for the following season's crop have not been formed, consequently there will be no blossoms on those particular twigs or branches at the next awakening of the tree, which we may reasonably calculate from nature's habits will be sometime next March or April.

That injury will result to the fruit trees it is reasonable to assume will be according to the extent of growth made and the continuation of a moist condition of the soil, which may permit the rootlets to complete a growth or shrivel and die.

That a benefit will result cannot possibly be, as no normal growth has been made.

Anyone who is familiar with plant growth in greenhouses where potted plants are handled day after day, watered, aired, shaded when too hot and protected when too cold, the root growth examined and repotting done, will understand the principles of growth which, as illustrated in the blossoming of fruit trees in the fall, means an abnormal, incomplete, faulty condition from which it will take time to recover.

The lesson, however, will have been worth all it has cost to California fruitgrowers when some years hence another "dry spell" occurs to keep their trees active until the cool days of autumn, or if by lack of irrigation facilities they become dormant let them alone.

The Citrus Situation—During the process of making some changes in the make-up of the Farmer last week the article entitled "The Citrus Situation Up to Date," by Henry L. Marshall, was crowded out. It appears in this issue in the Citrus Department.

WHEN IS THE PROPER TIME TO PLANT ORCHARD TREES IN CALIFORNIA?

THIS question, although not a vexed one by any means among those of experience in fruitgrowing, is evidently of some importance to newcomers or to those who have decided to add fruitgrowing as a sideline to their farm operations as evidenced by the questions relating to it which come to the surface at this season.

If water is obtainable for irrigation the answer is easy and self-evident, and is "any time when the tree is dormant." If water cannot be obtained for irrigation then it is best to plant early in order to get the benefit of all the winter rains.

In any event after a tree is dug at the nursery it does not improve its condition in the least to keep it "heeled in" and often the roots are injured by neglect in covering them properly.

In speaking of a tree as dormant a condition is meant when neither root or branch is active and it is well to have trees planted some weeks before the time for the buds to swell arrives, as the ends of the roots which are cut in digging should have a chance to callous and thus more readily put out their new growth.

And in this connection it will be readily understood that firming the earth about the ends of the roots either by pressure of the foot or by irrigation is perhaps the most important item in connection with the planting of a tree.

It should also be borne in mind by all who contemplate planting one tree or many thousands of trees that it pays to plant a tree in such a manner that it will not only live but make a good growth the first year. Land in California is geeting to be worth more and more as the state increases in population and its wonderful possibilities along agricultural and horticultural lines become better known, therefore it does not pay to plant trees or any other crop in a haphazard way.

The best of trees and the best possible care in planting is none too good in these progressive times.

THE FREE TEXTBOOK PROBLEM.

WITH fear and trembling many voters dropped their ballots in favor of free textbooks, not knowing from experience how the system would work out, but hoping that a saving might be made in the primary cost of the books and less frequent changes made, albeit they paid the bills through the medium of the state's treasury.

Now comes State Printer, Friend William Richardson with some figures that are at least indicative of a reduction in the cost of educating the children in California. Mr. Richardson shows that the state has made a saving of more than a quarter of a million dollars ($265,477) in about nine months. Further than this, the 1,231,681 textbooks furnished by the state for $219,681 would have cost the parents of the children so provided with books $485,169 under the old system, or more than twice as much.

This is a very encouraging statement, and means that the business of the state printing office has been conducted on sound business principles, which, after all, is the only question from a financial standpoint as between private or public ownership of any business or utility.

No doubt the widespread hostility to our former system and the vote for the free textbook system had its rise in the feeling that there was an unnecessary profit being paid to someone, which, coupled with too frequent changes, brought about a condition of mind among parents which welcomed any change as an improvement.

Following the same line of reasoning there is also a deep feeling of dissatisfaction with the conduct of other branches of public service and possibly the powers in control may heed the warning and avoid changes that may not prove to be as satisfactory to the voter and taxpayer as the school book change promises to be.

Some men will not take a minute of time to replace a tool, but they will take an hour's time in hunting one that has been misplaced. Is this economy?

ORCHARD

LOS ANGELES COUNTY'S HORTICULTURAL CONDITIONS AND WORK.

By B. R. Jones, Deputy Horticultural Commissioner.

LOS ANGELES county is the first in the state to get into operation a county charter and begin to manage her own affairs independently of the state laws.

The charter provides that each class of county employees shall be appointed from those who have passed a civil service examination held for that particular kind of a job, and then can only be discharged after charges of incompetency have been sustained before the civil service board: the accused person being granted a hearing in his own defense.

Several examinations have already been held, including one for horticultural inspectors, which was taken by about 30 intelligent appearing men. The questions were of a practical nature regarding insects affecting trees and plants in the county, several samples of the different scales on branches of trees being shown for identification. The plants infested by each kind of insect was also asked and the best remedy for each. That the efficiency of the inspection force will be greatly improved, is confidently expected.

The Los Angeles county commissioner's force is much the largest in the state, and the task of giving proper attention to tree and plant infestation in the city and suburban towns as well as on the ranches, orchards and county roads, makes this large force necessary.

Mr. William Wood, the commissioner, is a thoroughly practical man, having lived in California for over 40 years and been connected with the horticultural commissioner's force for the past ten years. He is a man universally liked and respected, and probably could not be equalled as a horticultural commissioner by any one in the county.

He is not only using every effort to control insect and disease troubles on plant growth, but is making a determined fight against the Johnson grass pest, the Russian thistle and other noxious weeds in the county with very encouraging success, and he is receiving the most loyal support from growers throughout the county, who realize as never before, the importance of this work and the conscientious and impartial manner in which it is being done.

As yet the Johnson grass work has been done on the higher land from which the grass would wash down to the other ranches if undisturbed, and as these sections are cleaned up, that on the lower ground will be attacked.

Fumigation is going steadily on for scale of the citrus trees, with excellent results as usual, and though very difficult, some progress is being made at controlling plant scales and insects in the city. The whole county is yearly coming nearer to the practically scale free condition to which the horticultural commissioner's office aspires.

PROMISING NEW APPLES.

AS the business aspects of fruit growing receive more definite recognition varieties will be planted more and more to meet particular conditions and for special rather than for general purposes states the Agriculture Department Year Book in discussing some promising new fruits. For instance, under present conditions one of the most important requirements of a winter apple in many sections is that it have good cold-storage qualities. Summer apples were for a long period, a minor commercial consideration, but for the past ten or 15 years an important demand for them has developed in the eastern markets which has greatly stimulated the planting of early apple varieties in many sections, where formerly they were little valued.

As the market demand for newer fruits increases and their culture becomes of greater commercial importance, new and better varieties or varieties better adapted to commercial needs will probably be developed.

The Eastman apple, now being cultivated in the upper Mississippi valley, was planted and developed for the peculiar needs of this region, which is characterized by long, dry, cold winters. It has proved to be a remarkably early, regular, and prolific bearer.

Handle all fruit with care while picking, sorting and packing. The early apples are especially subject to finger prints and discolorations.

ORCHARD LIFE IN THE SANTA CLARA VALLEY.

By H. A. Crafts.

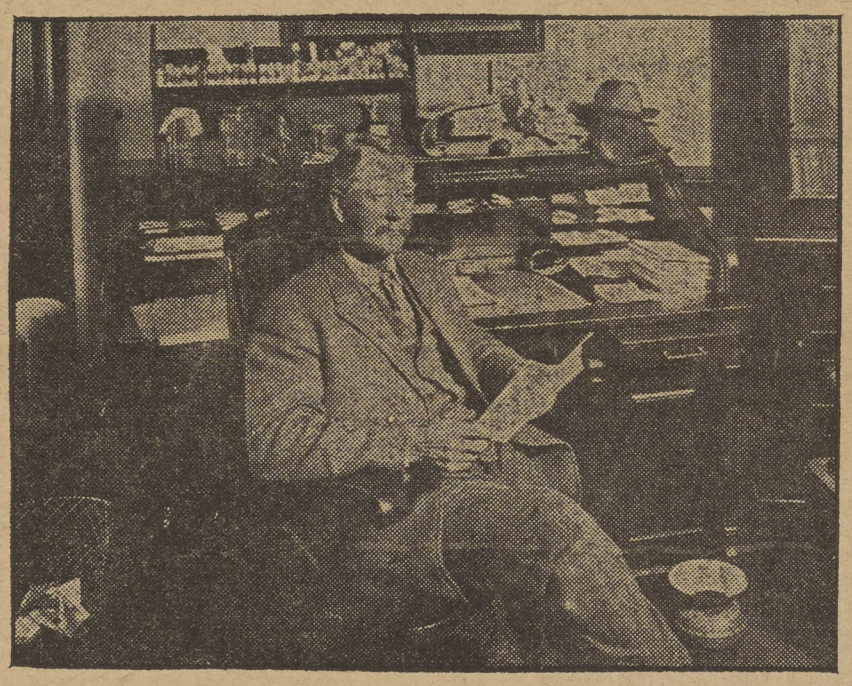
BESIDES her fruit and vegetable industries the Santa Clara valley engages in general farming, dairying, stock raising, etc., so that her varied lines of husbandry present a very interesting study for the observer, who has a mind to look about him and see what is really being done in this 20th century.

The leading industry in the valley is the raising of prunes, and the magnitude of this industry may be better understood when it is stated that the Santa Clara valley produces annually more than one-half of the total prune production of the United States. In other words it furnishes the entire domestic market, as well as shipping large quantities of dried prunes abroad to England, Germany and Russia.

The prune orchards in fact are the leading feature of the valley, and they present a very pleasing spectacle both from an esthetic and material point of view. Everybody likes to visit the valley at the height of the prune bloom, for at that time, the valley itself is one vast expanse of delicate white blossoms.

The prune blossoms are not the first of the season, however, the rich, yet delicate pink of the almond bloom showing first, and that is in the month of February, and very odd thing our friends of the east will say; delicate petals putting forth in midwinter when so large a part of the country is under the cold influence of the ice king.

But it would be quite superfluous to explain that California's winter is mild, and is a season of springing grass and bursting buds.



MR. WM. WOOD,
Los Angeles County's Horticultural Commissioner, in his office.

The season, however, being just what it is, affords the very best time imaginable for the care of orchards; and as you travel out through the country districts you will see on all sides the fruit growing farmers and their hired hands at work among the fruit trees.

First comes the annual process of pruning the trees to rid them of all dead and superfluous growth.

Much of the brush thus trimmed off is gathered into heaps between the trees and burned up; while in some cases it is piled upon wide-bodied wagons, hauled to the house and there chopped up for stove fuel.

Of a mild, sunny day in the Santa Clara valley during this season of pruning you will see columns of blue smoke ascending in spots all through the orchard districts, which lends a very warm and comfortable aspect to the scene, and assures one that the fruit growers are "getting busy."

It is now in the midst of the rainy season, and of course vegetation is springing up everywhere. Both valley and hillside is putting on a coat of deep green, and the grass and weeds are springing up in the orchards in spite of all the labor that has been expended upon them during previous seasons.

Soon it will be irrigating time and the opportunity is taken to clean out and remake the lateral ditches that are to convey water to the trees throughout the orchards.

Taken all in all it is a busy season with the farmers, but there is no rush nor hurry about it all, the season being in reality an ideal one for performing out of doors work. Of course there are some rainy days, but a peculiar feature of the California climate is that much of the rain falls during the night when the farmer is asleep, in the morning the rain ceases, the skies clear and the farmer may continue his work as if no rain had fallen.

In March the prune trees are in full bloom, and they are followed in close order by the cherry, apricot, peach, pear and apple trees. And sandwiched in between them are various other fruit and nut-bearing trees, that put forth their bloom to add to the general resplendence of nature's reawakening.

There are millions of roses, too, that are now in their glory, and the pasture and meadow lands are soon all be-spangled with the bright rich orange color of the California poppy.

The spring is a busy season with the fruit growers of the Santa Clara valley. The plowing and cultivating between the trees must be kept up until the rainy season is over.

The harvest of the deciduous fruits begins in May with the gathering of the cherries. Of course oranges and lemons grow the year round, and strawberries in California may be gathered every month in the year.

The California cherry is large and luscious and the first picking is hurried to the packing-house, there to be prepared for shipment to the eastern markets, where winter is just over and home-grown fruits are not yet obtainable, and where fancy prices are paid for the first California cherries of the season.

Next comes the apricot crop, and this is more of a proposition. The best qualities are hurried fresh to the markets, both east and west, while a large part of the output is carted to the drying yards, packing-houses and canneries, there to be worked up into merchantable products in the shape of dried, canned and preserved fruit.

Peach and pear picking follows hard and fast, and the valley gets busier and busier. There is work for everybody in the orchards and fruit factories and the pay is good. Thousands leave the cities at this season to go out into the country to help harvest the great fruit crop which seldom, if ever, fails. Men, women and children are all given employment, and large numbers of these people camp out in the vicinity of the orchards, and make a season of it; living and working in the open, gaining in wealth and in health.

The height of activity arrives when the prunes begin to ripen, and that is in August. The trees are bending with purple and sugary fruit and the dead ripe prunes begin to fall off.

And that is just the condition to be desired, for, be it known, that prunes in the gathering are not picked from the tree like the generality of other fruits, but are allowed to remain upon the trees until fully ripe when they fall to the ground of their own accord and are picked from the ground into buckets.

But the pickers do not wait until all the fruit falls off before beginning to pick, but begin work as soon as there is a fair picking on the ground, and they go over the same ground three or four times before all the fruit is gathered.

The orchards, drying yards and packing-houses are now the centres of great activity and in the busier parts of the season the roads leading to the packing-houses are lined with loaded wagons and at the packing-houses they stand in long lines awaiting their turn to be unloaded.

SHIPMENT OF FRUITS FROM PLACER COUNTY.

Report of Commissioner H. H. Bowman.

THE amount of fruit produced and marketed outside of the county for the present season is as follows: Eastern shipments (refrigerators), 27,700 tons; express and local shipments, 2550 tons; peaches for canning, 3750 tons; wine grapes, 3000 tons; total, 37,000 tons. This amount of fruit represents about 67 per cent of a normal crop, as a full crop season would, at the present time, be represented by 55,000 tons.

The principal varieties of fruit and their tonnage is represented by the following summary: Apricot, 140 tons; cherry, 710 tons; table grapes, 2800 tons; wine grapes, 3000 tons; peaches, 16,000 tons; pears, 2050 tons; plums, 12,300 tons; total, 37,000 tons.

In addition to these shipments, several tons of berries, figs, quinces, persimmons, olives, oranges, apples and several other fruits have been marketed. The exact figures on these are not yet obtainable.

During the past season 1,411,150 nursery trees, shrubs and vines have been inspected. Forty-five thousand nine hundred of these have been destroyed or returned to point of origin. This is but a trifle over 3 per cent of the total amount handled. It shows above the average.

We have, during the past month, been deputized state insecticide inspector, which authorizes us to examine any and all insecticides offered for sale for the purpose of determining whether or not it complies with the state insecticide law.

The state viticultural commission has asked our aid in obtaining a list of the acreage and of the grape growers of the county.

During the past month every section of the county has been visited and the usual orchard inspection work, with the exception of that for pear blight, has been almost completed for the season

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FROM THE COUNTY COMMISSIONERS

VENTURA COUNTY REPORT.

By R. S. Vaile, Commissioner.

THE following numbers of trees and plants have been inspected:

Imported—Lemons, 1650; oranges, 800; citrus seedbed, 2000; ornamentals, 27; miscellaneous plants, 2592.

Exported—Lemons, 1567; oranges, 801; citrus seedbed, —; ornamentals, 2; miscellaneous plants, 2822.

Five shipments have been treated for injurious insects and have afterwards been released as clean. One shipment was entirely rejected and destroyed. Pests intercepted have been mealy bug, purple scale, fern scale, and soft-brown scale.

Fumigation work on citrus has been continued during the month. This work is now completed in the Santa Paula district, the Fillmore district, and the Bardsdale district. Outfits are still operating at Piru, Sespe avenue and Nordhoff. The month of November should finish the work in all these districts.

It has been necessary to serve two abatement notices during the month for the completion of this work.

Some rather serious damage has been experienced by the burning of fruit in the fumigation work. One case where this was true seemed to be due to carelessness on the part of the operators.

Mr. C. H. Popenoe of the department of agriculture made a visit to the Oxnard district with the commissioner to look over the field with the idea in mind of stationing a department expert to work upon the bean wireworm problem.

Many of the apricot orchards in Wheeler canyon are effected by a disease which appears to resemble the die-back of citrus trees and is, so far as is known, not present in other districts. The cause for this trouble has not as yet been located, but a series of experiments have been proposed to determine if possible, both the cause and the control. Professor Lipman, has been conducting experiments at the Limoneira ranch with the citrus die-back and it is hoped that he will carry on the same work in the case of these apricot orchards.

This office has issued a circular letter regarding the fall treatment of lemon trees for Gummosis. Professor Fawcett is continuing his work on this line and also on the scaly-bark of oranges.

Some extremely bad cases of Armillaria have been found in the upper Ojai valley and the growers there have all been warned of its seriousness and have been advised of the methods for its control.

Mr. A. R. Tylor of the State university has been in the county finishing his notes on the damage by last year's frost and the recovery of the trees. On the Sespe Rancho a large number of trees were protected by wrapping in corn stalks, but were not smudged. Directly adjoining these other trees were not protected in any manner. The wrapped trees are in far better shape at present than the unwrapped. It is also noted on this ranch that trees on Trifoliata rootstock withstood the cold much better than those on either the sweet or sour orange. This root, however, is not considered a good one for general use in southern California.

A number of cases have been observed where the unprotected trunks of the trees have sun-burned and have died back considerably further than was expected. Considerable benefit seems to have been derived from the use of whitewash shortly following the freeze, in the prevention of such sunburns.

It is now time for all dead wood to be cut away and in doing this, great care should be taken to thoroughly disinfect all cut surfaces, and cover them with a good wax.

The attention of all those in the Santa Paula district whose fields are at all infested with Johnson grass has been called to this fact and recommendations have been made regarding its control. It is hoped that public sentiment will be aroused to such an extent that this office can enforce a clean-up of this pest. The same type of campaign has been commenced against the morning glory in the Oxnard-Hueneme district, where it is at present just getting a hold.

Attention is now being turned to the spraying of apricots for the control of the apricot scales and the mosses and lichens which grow on the trunks. The spray work will be commended in November. The shippers of dried fruit agree with the opinion of this office that this control work is an important factor and it is hoped that a great many will become interested in it this year.

CALIFORNIA STATE FRUIT-GROWERS' CONVENTION.

San Jose, California, Dec. 2, 3, 4, 1913, at Chamber of Commerce.

PROGRAM, TUESDAY, DEC. 2.

Morning Session, 9:30.

Dr. A. J. Cook, State Commissioner of Horticulture, Presiding.

Call to Order, Dr. A. J. Cook, Sacramento.

Music.

Invocation, Rev. H. H. McQuilkin, San Jose.

Address of welcome, Mayor Thomas Monahan, San Jose.

Address of welcome, Elmer E. Chase, President Chamber of Commerce, San Jose.

Response, Dr. A. J. Cook.

"Should Growers Breed the Crops They Grow," Dr. H. J. Webber, citrus experiment station, Riverside.

"Firing, or Frost Protection," C. C. Teague, manager Limoneira Co., Santa Paula.

Afternoon Session, 1:30.

E. N. Richmond, Presiding.

"Irrigation," Willis Jones, Claremont.

"Alfalfa," Dr. J. A. Cook.

"Notes and Records of County Horticultural Commissioners," R. S. Vaile, county horticultural commissioner, Ventura county, Santa Paula.

Evening Session, 7:30.

"Importance of Red Spider Control," H. P. Stabler, County Horticultural Commissioner, Yuba City.

"Horticulture and the Panama-Pacific Exposition, 1915," George A. Dennison, Chief of Horticultura, Panama-Pacific Exposition, San Francisco.

WEDNESDAY, DECEMBER 3.

Morning Session, 9:00.

Music.

Invocation, Rev. Halsey Werlein, San Jose.

"General Comments on the Citrus Industry," Dr. H. J. Webber, Riverside.

"Soils," Dr. C. B. Lipman, University of California, Berkeley.

"Fungi," Prof. H. S. Fawcett, Citrus Experiment Station, Whittier.

Afternoon Session, 1:30.

Dr. H. J. Webber, Presiding.

"Peaches and Their Culture," C. F. Collins, Dinuba.

"Thinning Deciduous Fruits," George P. Weldon, Chief Deputy Commissioner of Horticulture, Sacramento.

"Standardization," F. B. McKevitt, Sacramento.

Evening Session, 7:30.

"Soils," Dr. C. B. Lipman, Berkeley.

"Fruit Producers and the Panama Canal," Isidor Jacobs, President California Canneries Company, San Francisco.

THURSDAY, DECEMBER 4.

Morning Session, 9:30.

Music.

Invocation, Rev. W. W. Willard, San Jose.

"Walnut Culture," Dr. W. W. Fitzgerald, Stockton.

"Discussion of Walnut Culture," Prof. R. E. Smith, Pathologist, University of California, Berkeley.

Address, Governor Hiram W. Johnson.

Committee reports.

Afternoon Session, 1:30.

Delegates will visit orchards and places of interest in Santa Clara county.

Evening Session, 7:30.

"Quarantine on the Mexican Border," Frederick Maskew, Chief Deputy Quarantine Officer, San Francisco.

"Rural Credits Under California Conditions," Col. Harris Weinstock, U. S. Farms Credit Commissioner, San Francisco.

Immediately after the convention such county horticultural commissioners as choose will meet for a week or ten days of study, lectures and laboratory work with the State Commissioner of Horticulture.

ANNUAL MEETING OF COUNTY COMMISSIONERS.

The State Association of County Horticultural Commissioners will convene in annual session at the Chamber of Commerce, San Jose, on Monday, December 1, at 9 o'clock a. m.

ROLL CALL—ORDER OF BUSINESS

(a) Reading of minutes of last meeting.

(b) Reports of committees.

(c) New business.

1. Value of county quarantine ordinances in preventing the spread of insect pests and plant diseases, By S. A. Pease. Discussion led by William Wood.

2. Caution and business judgment necessary in inspecting nursery stock, by H. P. Stabler. Discussion led by William Garden.

3. Most effective remedies and other methods of combatting insect pests and fungous diseases of deciduous orchards, by W. H. Volck. Discussion led by George Marchbank.

4. Most effective remedies and other methods of combatting insect enemies and fungous diseases of the citrus, by William Wood. Discussion led by R. S. Vaile.

Officers.

President.....Dr. A. J. Cook
StateCommissioner of Horticulture.
Vice President .....E. N. Richmond
San Jose.
Secretary.....E. O. Essig, Sacramento
Sescetary State Commission of Horticulture.

Entertainment.

Earl L. Morris.....San Jose
County Horticultural Commissioner.
E. T. Petit .....Cupertino
F. H. Babb .....Cupertino
J. T. Grant .....San Jose
Dr. J. T. Bullit .....San Jose

Finance.

E. L. Fellows .....Campbell
L. J. Lathweisen .....Berryessa
O. B. Woods .....Cupertino

Music.

Elmer E. Chase .....San Jose
L. F. Graham .....San Jose
Miss Lulu E. Pieper .....San Jose

WAR ON NOXIOUS WEEDS.

Report of Commissioner F. W. Waite. For Imperial County.

THIS valley is very fortunately situated, surrounded by the desert and the whole encircled by mountain ranges, which makes it possible to control the situation much more satisfactorily than is possible in other counties where they are divided by an imaginary line only.

Quarantine work is well under way. All articles coming into the county liable to carry infection detrimental to the agricultural and horticultural interests are carefully and thoroughly inspected.

Guarding the county as to what comes in, the Horticultural Commissioner has the support of all concerned. At the present time there are a few (about 40) places with Johnson grass, a half-dozen places with wild morning glory—the two worst weeds to be rid of—with considerable creeping malva, which is second to morning glory.

The balance of weeds now in the county can be controlled by clean cultivation excepting Bermuda grass, which requires shallow plowing in hot weather and drying out, then deep plowing.

The Board of Supervisors have authorized that ordinance No. 16, which prohibits the importation of Johnson grass and other noxious weeds into the valley, be enforced strictly hereafter.

The ordinance provides a penalty of $500 fine or six months' imprisonment, or both fine and imprisonment, for any interference with the efforts of the county horticultural commissioner in ridding the county of the noxious weeds. The ordinance also establishes the right of the commissioner to take the matter of eradicating the weeds from ranches into his own hands.

The following goods were inspected and received into the county during the month of October:

85 boxes lemons.
21 boxes oranges.
87 boxes pears.
23 boxes grapefruit.
1869 boxes apples.
648 boxes apples from Oregon.
49 sacks alfalfa seed.
1029 sacks alfalfa seed from Arizona.
48 sacks alfalfa seed from Kansas.
1 sack alfalfa seed from Iowa.
16 sacks cantaloupe seed from Colorado.
2 sacks corn from Arizona.
1 sack orange seed from Louisiana (fumigated).
2299 sacks potatoes.
2 sacks beans.
2 sacks grass seed.
3 sacks mixed garden seed.
3 barrels spineless cactus.
1 barrel apples.
8 crates spineless cactus.
2 cherry trees from Iowa.
4 apple trees from Iowa.
2 plum trees from Iowa.
32 shade trees from Iowa.
135 berry plants from Iowa.
110 strawberry plants from Iowa.
500 cabbage plants.
1800 pepper trees.
400 ornamental trees.
4 grapefruit trees.

Condemned: 30 sacks of alfalfa seed from Arizona on account of sour clover (Melilotus Indica), 7 sacks of alfalfa seed from Riverside county on account of star thistle and sour clover ,17 sacks alfalfa seed from Rockyford, Colo., on account of sweet clover (Melilotus Alba).

FORESTRY NOTES.

Siam exports about nine million dollars worth of teak a year.

The Automobile Club of America, through its bureau of tours, is urging automobilists to use care with fire in timbered regions.

There are about 37 pines native to the United States, of which 25 are Western species and 12 Eastern.

Much of the cork used throughout the world comes from Portugal, which harvests about 50,000 tons a year.

Paraguay has valuable forest resources, the most important of which is quebracho, particularly rich in tannin.

Germany is said to have an oversupply of foresters, so that well-educated men have hard work to secure even inferior positions.

The republic of Colombia is said to have excellent regulations for its national forests. Lumbermen who take cedar and mahogany are required to plant young trees of the same species in the cut-over spaces.

The forests of Norway are mostly in private or municipal ownership, the nation owning 28.5 per cent of the total forest area. The national forests of the United States occupy only about 20 per cent of the total forest area of the country.

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Strychnine Sulphate 65¢ an ounce

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THIS SQUIRREL DESTRUCTOR is an apparatus by means of which 13.3 cubic feet of KILMOL gas is forced into the squirrel burrow. The gas fills the burrow, and being heavier than air, remains in the burrow several hours, which means death to the squirrel. Failure is impossible.

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TULARE COUNTY CITRUS FAIR.

It Will Be Held in Visalia This Fall From December 4 to 13.

California the past year passed through one of the coldest winters in her history. In spite of this fact, the Tulare county citrus fruit belt will this year produce a record crop of excellent oranges and lemons. "The proof of the pudding is the eating thereof." Confident that they have the proofs, Tulare county people have decided to hold a citrus fruit fair this fall to which they will invite the whole world to come and see the evidence of Tulare county's supremacy as an orange and lemon producer.

The merchants of Visalia raised a guarantee fund of $12,000 in three days. The committee in charge, headed by J. Sub Johnson, president of the Tulare County Board of Trade, has made arrangements for the building of an immense auditorium, containing 30,000 square feet of space, on a large lot near the business section of town. There will be exhibits from all the leading citrus fruit producing sections of the county, including Porterville, Lindsay, Exeter, Strathmore, Ducor, Terra Bella, Lemon Cove, Naranjo, Woodlake, Klink, Dinuba and Orosi.

During two days of the fair automobile races will be features, while night and day one of the finest bands in the State will make sweet music.

The last Tulare county citrus fruit fair, held in Visalia in December, 1910, is still remembered. The fair this year is expected to be even more successful.

PLANT ONLY TESTED AVOCADOS.

To prospective avocado planters in southern California who may consider the advisability of planting avocados on an extensive commercial scale, the United States Department of Agriculture offers a word of caution. Many varieties of avocado of which a considerable number have recently been imported from without the State, have never fruited at any point within the State, so far as is known to the department. For this reason their suitability for commercial culture in their new environment is still a matter of question.

Experience with young avocado trees of certain varieties, principally the large fruited West Indian and South American kinds introduced in southern California has, up to the present, seemed rather discouraging than otherwise. The newly introduced plants have proved considerably more susceptible to frost than some of the Mexican types which have fruited in California, and during the cold weather of January, 1913, many trees of the West Indian and South American varieties were killed in localities where Mexican trees survived. These tres were all young specimens and probably not able to withstand as low temperatures as a mature tree; nevertheless past experience has indicated beyond the possibility of a doubt that all so-called South American varieties which have been tested were much more tender than numerous Mexican varieties established in the California trade.

CITRUS NOTES.

The Oroville section of Butte county will ship 165 carloads of oranges this season according to Commissioner Earl Mills' estimate.

Louisiana will have a normal crop of oranges. Shipments began the middle of October and will roll up from 400,000 to 500,000 boxes.

Visalia will have an orange show in December. Twenty thousand dollars have been raised and a pavilion will be built, and it will be called the Tulare County Orange Show.

Corning, Tehama county, has a smaller crop of oranges than normal on account of the very dry season. Corning oranges are early and good and growers know how to care for their groves. The frost last winter did no damage.

San Bernardina will harvest oranges earlier this year on account of hot and dry weather which has ripened up the fruit.

Customer—I see you have fresh eggs at 35 cents a dozen and extra fresh eggs at 40 cents. Is there much difference?

Grocer—Well, madam, the extra fresh ones were laid in the early morning when the hens themselves were fresh.

CITRUS FRUITS

THE CITRUS SITUATION UP TO DATE.

Written for the California Farmer
By Henry L. Marshall.

BUYING 300 acres of land for $60,000, or at the rate of $300 an acre, and at the same time with the stipulation that the land shall be high-class citrus land, is the curiously-ambiguous job that has been given to the board of regents of the University of California, in selecting a site for the experiment station to be established some where south of the Tehachapi. Some 60 sites have been offered to date, and the committee will be busy investigating these sites for the coming two months.

When the three bills relating to this citrus and walnut experiment station were written, nothing was included, or inserted afterward, that would tie the university down to a certain number of acres for a certain number of dollars. But the men who first conceived the idea of getting the state to appropriate money for the purpose, had a site all picked out in their mind's eye at the time, a site which could be, and can still be purchased at the rate of $300 an acre. But it isn't good citrus land. I don't have to go and see this land to know that it isn't good citrus land, nor do you, gentle reader. Good citrus land can't be bought in California for $300 an acre, and this ends the argument.

But this matter of a certain number of acres at a certain price was very strongly impressed upon all who were prominently connected with the movement, until it began to be talked freely. As soon as the citrus ranchers heard of it, there were many unfavorable comments—so many, in fact, that the "men at the wheel" began to hedge. It is certain that the committee will not buy $300 land with the idea of convincing hard-headed citrus ranchers that it will make a tip-top place upon which to experiment in citrus fruit raising.

It was therefore very reassuring, when the board of regents appointed a committee of prominent citrus ranchers to advise with the original committee made up of faculty members. Thus we have J. T. Lindley of Azusa, E. A. Chase of Riverside, C. C. Teague of Santa Paula, C. C. Chapman of Placentia, and R. C. Allen of San Diego, as an advisory board in the matter of the selection of this site, and knowing these men as we all do, we are sure in advance that, wherever this important station is placed, it will be on land that is suitable for the raising of citrus fruits, and, incidentally, scarcely to be purchased for $300 an acre.

A Citrus Capital.

Dr. H. J. Webber, now at the head of the small experiment station at Riverside, and the man who will be at the head of the faculty of the new station, in an address made recently, made use of the expression, "citrus capital," in describing what this new station might be, in its relation to the industry. He gives us the idea that the station will be the point from which many vital things directly pertaining to the progress of the industry will radiate, and this term, "citrus capital," is a striking one, and opens up an avenue for a wealth of conjecture concerning the future activities of this station.

To call it for the moment a "subcapital," or an advisory capital to the political one at Sacramento, opens up one phase in a manner pleasant to contemplate. For, if this citrus capital can be influential in getting good laws passed for the rancher—laws based on the scientific and practical rather than the largely political, it certainly will be of incalculable benefit. This is what Dr. Webber thinks it will do. Our present governor has shown himself to be very friendly to the advancement of the scientific in agriculture, and his regime, in some ways, has brought forth several valuable changes in laws, making conditions more beneficial to the farmer.

And, if the new citrus station can develop a power that will cause a reconstruction and rebuilding of our present horticultural laws, it will have done much to establish itself on a practical, as well as a scientific basis. For this we hope and humbly pray.

Shamel's Fine Work.

"Drone trees," in a citrus orchard, have at last been indicted and found guilty. Not enough publicity has been given as yet to the work being done by A. D. Shamel, who a very few years ago, allied himself with the staff at the Riverside experiment station.

Shamel's investigations of nonbearing trees goes deeply into the scientific field, but unlike most laboratorial investigations, the subject is so simple as to be understandable by any adult, whatever his calling. Not only have we merely one species of orange called the Washington navel, points out Shamel, but we have hundreds of varieties of the Washington navel. The selection of buds is one of the most intensely significant matters in connection with the industry, he says. It is not enough to select a good and hardy Washington navel tree to bud from, for the buds very in a hundred different ways on one tree. The primary lesson of the work is now to take only those buds growing in juxtaposition to a limb that has fine, well-formed fruit actually growing and ripening—the closer the buds are taken to the growing fruit, the more sure are we of getting good buds. Drone trees can in this way be changed to full-bearing trees.

One grower of citrus fruits, who is considered to be the wealthiest and the most successful orange grower in southern California, told Shamel, when that young man first began his investigations, that he (the grower) saw no reason for such experiments in his orchard, as the trees were now producing "all the fruit possible for them to produce." This grower was infinitely astounded when Shamel convinced him in a year that all of 50 per cent of the trees in this successful grower's orchard were practically non-producers. And Shamel showed him what was the trouble. If any rancher would like to read one of Shamel's speeches on this subject, it can be obtained by writing to this department, care of the California Farmer.

Overhead Irrigation.

Creating a fine, mist-like rainstorm over a citrus orchard, as a method of irrigation, rather than running the water in furrows or basins on the ground surface, has been something dreamed of by many progressive ranchers, but D. J. Overholtzer of Covina, seems to have successfully solved the question of installing a practical system.

Overholtzer, in his own words, is "just a farmer." But he has a fine grove and a fine pumping plant. This plant produces about 35 California miner's inches. He has connected the plant with a six-inch steel main, that runs the length of the upper end of the orchard, and he gets a pressure direct from his lifting pump that forces the water into inch pipes of galvanized iron, set about three feet above the present growth of his trees. The pipes are perforated, so that the water jets out and forms a spray. It soaks every portion of the orchard equally.

The overhead system has been in operation one year. You can pick out the Overholtzer orchard from others a long distance away, because of the amount of light-green growth that shows in the midst of the darker, older foliage. He has a fine crop this year.

But, one of the interesting statements the owner makes about it, is to the effect that the black scale has almost entirely disappeared from his ranch. The writer investigated this, and found it to be true, while just over the fence, out of reach of the spray, in a neighbor's orchard, the black scale was thick, although the neighbor had fumigated thoroughly the previous year. If Overholtze has eliminated the black scale, he has paid for his system in the saving of the fumigation bills for two years. He makes no claim as yet regarding the elimination of red spider, purple scale and other pests.

This overhead experiment has been watched closely by the men of science of the university, and by the county horticultural inspectors. Overholtzer continues to get a load of mail from ranchers. We may see some radical changes in irrigation in the next few years. For one thing, perhaps gravity systems will be forced to make over into pressure systems.

The Citrus Outlook Better.—Estimate of a 40,000 car crop of citrus fruits will probably not miss the mark very far. With 36,000 cars of oranges and 4000 cars of lemons California has come out of the disastrous freeze of last winter with flying colors. This is partly owing to the fact that the groves north of Tehachapi were dormant at the time of the freeze and escaped serious injury.

The average area administered by a ranger on the federal forests of the United States is about 100,000 acres. In Germany the area administered by a man of equivalent rank is about 700 acres.

The first strawberries sold in this country were placed on the market about 75 years ago. Hovey's seedling then came to notice and 20 years later the Wilson was largely propagated.

BEAUTIFICATION WORK IN FRESNO.

THE awakening of the people of Fresno to a realization of their duty in cleaning up and beautifying the city is well-worth imitating by many cities and towns in the state. Most of the suggestions of the beautification committee would apply elsewhere and in order to give the movement as wide publicity as possible we print below all that might have a general application:

Remove all tin cans and other rubbish.

Beautify vacant lots by planting flowers and trees.

Encourage the planting of grass or flowers on spaces between street curb and sidewalk.

Hand-sweeping of paved streets and use of garbage cans at edge of sidewalks in business section.

Conservation of shade trees in residence district.

Provide more benches and keep the lawns in better condition with additional shade trees and more plants and flowers.

Tear down ragged awnings in business section.

Sweep sidewalks in front of vacant lots all over the city.

Trim shade trees in residence section where the limbs and leaves project over the sidewalk, striking many pedestrians in the face.

Oil alleys in residence district to prevent dust in summer months.

Remove all dirt on sidewalks from vacant lots, due to lack of care in preventing rains from washing soil toward the curb.

Clean up building sites as soon as possible after a fire.

Renaming and renumbering streets and avenues where confusion has existed.

Use house numbers in large figures so as to make them easily discernible from the street.

Remove rotten wooden watering troughs and replace them with cement or galvanized iron tanks.

Driveways through city to the various parks, the avenues to be lined on both sides with shade trees planted uniformly.

Bridges across creeks should be more artistically designed and built along massive lines.

Employ landscape expert to supervise uniform planting of shade trees, plants, shrubs and flowers; also beautify front yards and porches with a general clean-up in back yards and vacant lots.

Uniform tree-planting all over the city.

Eliminate unsightly billboards.

NAMES OF BEE HIVE PARTS.

Wesley Foster, Colorado State Bee Inspector.

MANY a bee keeper has ordered some hive part from a dealer in supplies and received something that he did not want. A thorough knowledge of bee hive parts as well as their names is valuable.

The hive stand is the platform or foundation upon which the hive rests; this may be a brick at each corner, or several boards, or a specially made platform.

The bottom board is the floor of the hive.

The hive body is the case that holds the combs of the hive proper.

The brood frames are the wooden frames in which the brood combs are built.

The follower board or division board is used beside the brood frames in the hive body to wedge over the brood frames and keep them snugly together.

The super is the case holding the one pound sections or honey boxes. The section holders are little frames upon which the sections rest in the super.

The separators are thin slats placed between each row of sections in the super to prevent the bees from making one comb fat and another lean.

The starter is the piece of wax comb foundation and tin sections and frames to guide the bees in building the combs straight in them.

The honey board is used over the frames in winter and also over the sections in summer being always beneath the cover. All hives are not supplied with honey boards.

The bee escape board is the honey board equipped with a little tin container or trap so that when placed beneath a super of finished honey the bees can pass through it but not return. Honey may thus be removed without using a bee smoker.

Brood foundation is beeswax rolled into sheets for use in the brood frames. It should not be used in the section honey boxes.

Surplus foundation is beeswax rolled into thin sheets for use in the sections only.—Ruralist.

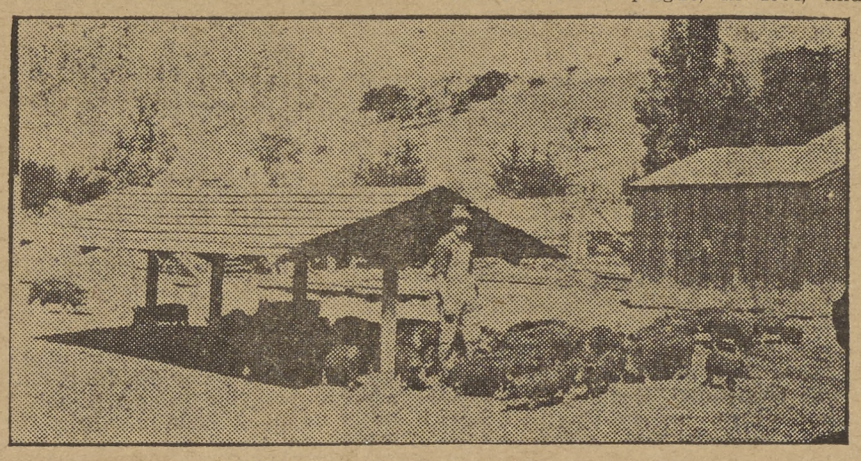
THE HOG RANCH

SWINE PLAGUE ON A HOG RANCH IN CALIFORNIA.

By Samuel E. Watson.

A FEW weeks ago I passed a little hog ranch in Marin county that had the appearance of being kept on a model basis. It is located near one of the French cheese factories of the county and whey was the principal food, with the addition of ground and whole barley grains, according to stage of development.

I had made up my mind to give an account of this, with approval of owner, for the benefit of the reader who might want to engage in a similar business and the photographs herewith were taken to illustrate the system of this enterprise, before investigation commenced.



SHELTER FOR PIGS IN HOT WEATHER

A casual glance showed that the brood sows, fat hogs and the younger stock were apparently in perfect condition, well-sheltered and given every attention possible for success. The young man, who had started the business in 1911, is capable and well-informed in feeding principles and general care and was found busy increasing facilities to enlarge and to handle a growing enterprise.

It was found, however, that there was trouble among the young and half-grown pigs with heavy losses from day to day, and the State university and a neighboring veterinarian were trying to solve the cause of mysterious deaths among one lot of nearly a hundred pigs. Carcasses had been taken to Berkeley and the result of scientific inquiry was awaited with great interest, as new cases were enlarging the hog cemetery adjoining.

At a later visit I learned that Professor George M. York, of the University staff, would be at the farm the next day and I was allowed to be present and learn the result of his investigation. By this time there was a pen of about 20 young pigs that were sick, some of them staggering around, others weakly hunting relief or drinking from the trough containing water and a little middlings, all that was allowed them.

On arrival, Professor York got into a white suit, put on old disinfected shoes and white rubber gloves, opened up his case of instruments and went to work on two young animals that had died the preceding day. Every organ was carefully examined for evidence of cholera, the suspected disease, and these were found almost in normal condition, excepting in the lungs, which the professor said were "what they termed beautiful cholera lungs." In cholera the intestines, lymphatic glands, and mucous membrane are involved with ulcers or inflammation, according to the books, and contents of the intestines may be black and offensive. Nothing of this character was found in the dead pigs and this made the disease apparently not cholera.

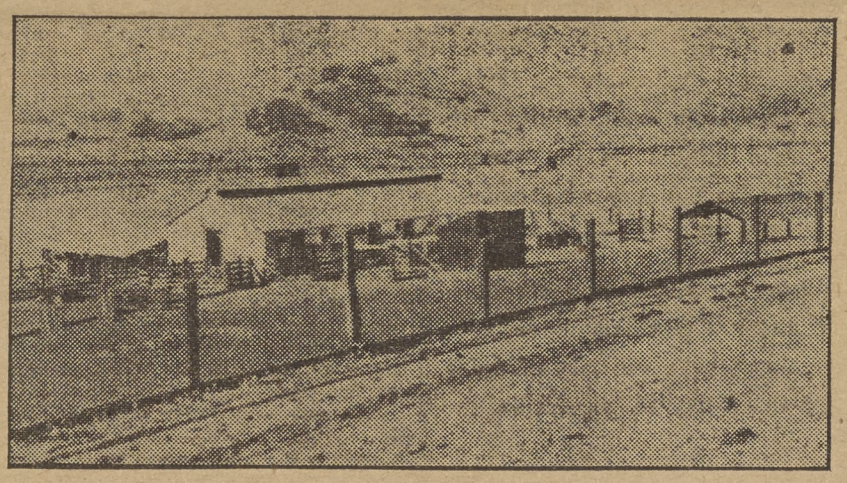
The lungs were covered with red spots, however, and taking this and the absence of other symptoms of cholera it became almost certain that swine plague, usually classed with hog cholera, was the cause of the losses in the herd. Professor York said that where only the lungs were affected that there was little impairment of appetite and the pigs would feed up to their deaths and these sick animals were acting in that way, while in cholera and with intestines affected there would be no appetite.

The owner had described the action of all the pigs that had died and condition of the organs. He stated that before death they had seemed to have "epileptic fits," then recovering and again going through the same fit often, until death. While we were there one of the small pigs fell down on its side and worked all its legs frantically for nearly half an hour, then seemed to recover and staggered around the corral for sometime, and finally went through the same motions, squealing and grunting, until it became weak and died.

Immediately the organs were examined and exactly the same condition in the lungs were found as in the others, with some of the organs showing blood congestion, but other cholera symptoms were not found. Coughing and evidence of pneumonia had been noted in many of the previous cases, as the local veterinarian had discovered and coughing was still heard among the small and larger pigs affected. It had been noted, also, that the mucous membrane around intestines had been thickened and covered with foreign matter in some of the earlier cases, which goes with lung affection in swine plague, therefore it became certain that this was the disease found on this ranch.

Bulletin, No. 100, Purdue university, on diseases of swine, covers hog cholera and swine plague, in 1904, and some quotations from this will be of interest here. It says in part:

"Hog cholera and swine plague have been made the subjects of special investigation by the United States Bureau of Animal Industry and the greater part of our knowledge of these diseases come through this source. These two diseases are the cause of practically all our great losses among swine. In some outbreaks it is easy to distinguish which is present and in others the two affections may exist in the same herd."



VIEW OF HOG RANCH IN MARIN COUNTY

The bulletin says that "there is a specific germ for each of these diseases. These germs differe in size, etc., and effects on the body. Swine plague bacillus is about half the size of cholera germs, 25,000 of which, end to end, measure an inch, and cannot be seen without special equipment of laboratories. Professor York stated that it is difficult to identify these germs under the microscope as they are so very minute in size.

Comparing the action of the two germs this bulletin continues. "Hog cholera germs will live in the soil from two to three months, while swine plague germs will live from four to six days. When hogs are fed on cholera germs they will become diseased, but not when fed with swine plague germs. When hogs are inoculated with cholera germs the disease affects the intestines, but with swine plague germs the lungs are affected." It says: "There are other differences between these germs, but those enumerated should be sufficient to satisfy the general reader."

Hog Cholera.

"The germs of hog cholera are found in the blood and in the internal organs. They grow in bunches and as they are carried along in the blood stream to the small arteries and capillaries they act as little plugs to shut off the circulation in the part supplied by the little vessel. At each place the circulation is thus arrested we have a small red blotch, so frequently seen in the skin, meat, fat and viscera of hogs that die of cholera."

Swine Plague.

"In swine plague the germs are more diffused through the circulation, but may cause the same red patches. The parts attacked are the lungs primarily, and other organs as complications result. The effect in the lungs is to cause bronchitis and pneumonia. The mucous membrane becomes congested and thickened, blocking certain areas, and sepsis or pus formation occurs, making abscess cavities of greater or less size. If the hog should die early in the disease the appearance will be that of pneumonia, but if later these abscesses will have formed and they will contain pus or cheesy matter. The other organs are involved secondarily."

The bulletin then says "It will therefore be seen that hog cholera affects the intestines primarily and that the disease may extend to the lungs and that swine plague begins with the respiratory organs and progresses toward the intestines. Both diseases may be present in the same subject and the lesions are not always typical, and a diagnosis cannot be made by the eye alone."

There seems to be no remedy for these diseases and when either breaks out sick animals should be isolated to prevent further infection, as far as possible.

The owner of this hog ranch decided that his best course was to keep all infected animals by themselves and to have a treatment by Professor York, in which the others received an injection of serum and afterwards be vaccinated with a virus that is part of the treatment. Brood sows were to be handled differently, according to breeding, as it was not deemed safe to include them in the virus treatment.

Among the apparently sick animals temperatures were taken and if this was not over 103 degrees the serum was injected while I was present. If 104 to 107 and the young pigs were weak, this was not given them. The work was to be done on the basis of payment for material used, the serum being seemingly expensive.

As several thousand dollars were invested in the buildings and equipment of this place and it is the intention to continue the business through all difficulties, it seemed best to have this treatment given than to risk the possibility that all the valuable and mature breeding stock should be lost, therefore it appeared that there was nothing to do except to follow the advice of the university expert as to treatment.

It will be noted that all the buildings and shelter for the stock are well-arranged and that the situation on sloping ground gives splendid drainage to this place. A system of thorough cleanliness is followed and the quarters are rigidly kept clean and in good order. There is no neglect in attention to details and besides good sanitation extra care is taken to guard against winter storms and especially to keep brood sows and litters well protected.

As the photographs indicate the stock has sheltered covers against hot weather, which they eagerly use. Excepting that the germs of swine plague had come in from winds or stray animals this outbreak is a mystery, for all young stock is bred on the place and no chances have been taken in buying from other farms.

Are your pigs growing? If not there must be something the matter.

Hogs and sheep greatly relish the fallen fruit. Never let it rot on the ground.

Weaning requires care and attention. Feed the sow corn-meal, water and grass which are not milk producers.

QUALITY OF CALIFORNIA PRODUCTS.

NOT California grown corn alone shows a higher percentage as to quality than the whole United States, but according to the November crop report other crops are also in the lead.

For instance apples lead by 9.8 per cent; pears, 5 per cent, and grapes 2 per cent. The potato crop in 1912 was practically the same, but in 1913 fell back 3.8 per cent in quality.

This condition was no doubt due to the very dry season which shortened the crop, (although in point of yield California still lead by 25.8 bushels per acre), and the attacks of the potato moth which infested our potato plantations more than usual.

The prices realized by California producers as against the whole United States for 1913 show percentages in favor of California in all but potatoes. They are as follows:

	Cal.	U. S.
Wheat, cts per bushel...	91	77
Corn, cts per bushel....	86	70.7
Oats, cts per bushel....	55	37.9
Barley, cts per bushel..	67	54.7
Potatoes, cts per bushel.	68	69.6
Eggs, cts per dozen....	40	27.4
Hay, dollars per ton....	13.50	12.26
Butter, cts per lb.....	35	28.2

OLD SOWS FOR BREEDING.

IF we breed and raise our own sows we always have to have a young sow before we can have an old one, but as a rule I breed from old sows and if I have any that have not proven satisfactory I cull them out and select the young gilts to take their places.

I find that the pigs from my old sows always weigh from 25 to 50 ponuds more at 10 months old than the pigs from the young sows. They seem to have more bone and are more growthy. This is my reason for breeding from old sows.

There is one rule which I always follow and that is, never to breed a gilt so that she will have pigs until she is at least a year old and I always let them run with the rest of the shoats until about two months before I expect to sell the bunch and then separate them.

As a rule this is about breeding time when they will weigh about 175 pounds and not be fat, just in good breeding order.

My reason for keeping old breeding sows is I can get more bone and more growth on the litter and two litters a year.—A. O. Choate.

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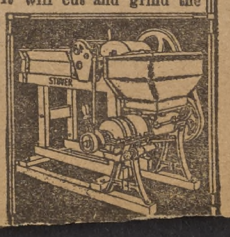
or can be grown, wherever kaffir corn grows or can be grown, wherever pea-vine hay grows or can be grown, there is a place for a Stover Alfalfa & Kaffir Corn Grinder.

This machine can be used in nearly every section of the United States. It will cut and grind the fodder mentioned above and with this can be ground dry ear corn or shelled grains independently or mixed with the hay so that every feeder can produce his own balanced ration.



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HANDLING BEES.

Rapid and nervous motions in handling bees are to be avoided as such incite the bees to attack the operator when a calm, steady movement would pass unnoticed by them. How frequently in examining a colony, several bees will dart out from between the frames, strike the hand or arm and then quietly alight making no attempt to sting and later will fly back to the hive, whereas rapid or nervous movements would surely have met with rebuff.

To summarize—exercise judgment in the use of smoke; do not disturb the bees unnecessarily; handle them quietly, without rapid motions; and finally study your bees with the idea of learning how to better assist them in their activities instead of working at cross purposes with their organization, the completeness of which and whose marvelous product has been the object of the wonder and admiration of man from time immemorial.—Rural Life.

MUCH USEFUL INFORMATION.

Can Be Had by Writing to Advertisers in this issue for catalogues, pamphets and literature which will be mailed without cost.

THE HORSE VS. AUTOMOBILE.

"Reports from the Union Stock Yards of Chicago give the interesting fact that there are now employed in Chicago 72,939 horses, or only 287 less than a year ago. In Boston the number of horses is only 50 less than ten years ago. Minneapolis has 158 more, and St. Louis 730 more, than ten years ago. Inasmuch as the city driving and carriage horse has rapidly disappeared the figures show that more draft-horses are in use today than ever before motor vehicles notwithstanding."—Farm and Fireside.

Farming is attracting the attention of men as it never has in all ages of the past. Because of its bigness, its possibilities, its need, men are taking up the scientific study of farming in our agricultural colleges with more earnestness than they do law, medicine or engineering.

It is claimed that in South America there is a most convenient milk producing tree which the natives take advantage of for the feeding of their children. By boring a hole in its trunk a clear sweet stream of milk emerges, which is both healthful and delicious.

GOOD ROADS

A ROAD THAT NEVER WEARS OUT

Shall We Issuue Bonds for Experimental Road Building?

By F. J. Currier.

ONE morning, thirty years ago, from the door of a homesteader's cabin, on one of our western prairies, I looked off across a boundless expanse of unbroken virgin sod. Not a stick, or stone, or tree was in sight. Nothing had been changed since Mother Nature planted the flowers and grasses that carpeted the scene.

But stay! What were those long parellel lines of ranker, stronger waving grasses that stretched from the eastern horizen to the western limit of vision?

A closer examination disclosed that the lines marked deep, rutted grooves, many in number, made by the passing wagons of emigrants on their westward rushes in the early '50's.

It was the "Oregon Trail!"

Here, then, was one of those primitive highways used by thousands of travelers, but by thousands who used it for but one passage, with no thought of return and, of course, with no thought of improving its condition for future use.

In my mind's eye I could see the heavy slow-plodding ox teams, with the ponderous, creaking, canvassed-covered wagons, creeping at a snail's pace over the face of the landscape. They came from the sunrise and disappeared in the glow of the setting orb, and no driver looked back to see if he could better the pathway for a subsequent comer.

Its name was well bestowed. It was a "trial" but not a road.

It is a far cry from the primitive, grass-grown trail of the '50's to the asphalt surfaced macadamized road of today, but it is a still farther cry from the plodding ox teams of the same '50's to the six-cylinder automobile, or the ten-ton motor truck of the present time.

Has the evolution of the roadbed kept pace with the evolution of the vehicles that use the roadbed?

For years the makers of armor plate and the makers of ordnance have been engaged in the keenest rivalry. No sooner was a twelve-inch steel-hardened shell of 1000 pounds weight produced, that would penetrate any plate of armor then in existence, than straightway the maker of armor plate devised a nickle-manganese, tungsten steel, with hard and soft layers that was a match for the twelve-inch shell.

Then a heavier shell was followed by thicker and heavier armor plate, the destructive power of the one being matched with the resisting power of the other.

We may very fairly liken the swiftly-moving, heavily-laden vehicles of today to the high-power projectiles of the ordnancemaker, and our modern highways to the armor plate of his rival.

Has the resisting power of the roadway kept pace with the destructive wearing power of the users of those roadways? And if not, why not? And is there a remedy?

That a negative answer will have to be given to the first question must be conceded by any one who has given the subject careful attention.

Take our own county, Santa Clara, for example. We have had scores of miles of smoothly-rolled macadamized roads, costing from $3000 to $10,000 per mile, and not one mile of these expensive turnpikes had had a life of more than eight years, most of them much less.

During the first year the road is a boulevard, a joy undimmed. Loads roll along its surface with a minimum of power. Automobiles flash over its smooth face, trailing a cloud of dust, and motorcycles make of it a racecourse. So the first year of the road's life goes by.

During the second year of its existence little concave depressions show all along the way. In these depressions the rains of winter gather, and the water from the sprinkling wagons collect, to be ejected by the first passing automobile, along with a quantity of mud. Each repetition of this procedure makes the hole deeper and wider.

If the road was constructed on adobe soil, probably spots in the dirt foundation have settled, accentuating the inequalities on the surface.

Two more years sees the road surface in such deplorable condition that patching has to be resorted to. By the fifth or sixth year even patching is useless, and the road is reworked. "Scarifying" it is called. This puts the road into passable condition for another year, or possibly two, but not longer, when the whole road has to be rebuilt and the process of destruction is repeated.

Here, then, we have a $5000-a-mile road worn out in eight years, or an annual depreciation of $600 per mile per year. This estimate does not include the annual cost of sprinkling, patching, or wear on the nerves of the taxpayer.

Even the less-traveled roads, that cost but $3000 per mile to construct, show an annual depreciation of $2 per mile.

I do not refer at all to the notorious $10,000 per mile, so-called petrolithic road, leading south from San Jose. This road at best, or worst, was only a $44,000 experiment and is now a thing of the past.

Specific instances might be given to substantiate our contentions as to the enormous annual depreciation of our roads, but enough has been written to cause the thoughtful person to investigate for himself. Surely the "bullet" has proven to be harder than the armor plate.

What are the causes of the latter weakness?

There are three main ones that are most apparent:

1. Faulty construction.
2. Poor material.
3. Lack of surface preservative.

Faulty construction frequently means a poorly-prepared foundation bed. If, as is usual, of earth plowed up and rolled into shape with a steamroller, it fails to hold up under the enormous loads now brought to bear upon it. This is especially true of all low-lying or adobe soils.

If the earth foundation settles or gives away in places, as it does, the covering of broken rock must settle, too, and a broken back is the result. The remedy for this condition is obviously to build a more solid, heavier foundation. Better packed earth and thicker and better rolled rock alone will remedy this.

If faulty construction is combined with poor material, as is so often the case, no wonder our roads are short-lived.

Only a few weeks ago I saw a car of crushed rock that one of our overseers was using in rebuilding a worn-out road. I called his attention to the large quantity of mere dirt in the material. He acknowledged that the car was not up to specifications, but just the same it was accepted and used. The twenty rods, or so, that was covered by this inferior material will, in a year or two, be full of chuck holes and ruts, and can never be put in first-class condition by patching.

The large quantity of poor material used in the past has been one of the great contributing causes to road depreciation. A load here of soft material, a carload there, and the usefulness of the road is destroyed, and much money needlessly wasted.

But even if by any chance a stretch of road has been well built let the material be ever so good, or the foundation ever so stable, we have neglected to preserve the surface from the terrific wear and tear of high-powered automobiles and heavy teams and motor trucks.

We have all seen the cloud of dust that rises behind a fast-moving automobile. We have choked, and sneezed as the cloud enveloped us and watched it float away over the neighboring orchard. But how many of us have actually measured the loss thus arising?

By actual measurement I have found that two and one-half inches were thus eroded in two years, or at the rate of over one inch per year. No wonder the road wears out in eight years!

All our states and the countries of the Old World are working on this phase of the problem.

Oil, coal tar and asphaltum are being used to prevent this waste and while there are some objections to their use aside from their cost they materially help in the preservation of the road surface.

The experiments so far seem to show that with a properly constructed, solid foundation, the best of material for the roadway, and a coating of good grade asphaltum surface, the life of the road may be prolonged for many years.

All that has been written so far is so prominent in our state, in many states, and in several of the counties of our state, our own county included.

"Are we justified in issuing bonds to construct highways?"

It is not a question of good roads. That necessity is conceded by everyone. We have long passed the day of the old farmer who refused to aid in bettering a deplorable piece of road that ran past his home. His argument was that if he had good roads his boys would be off "galivantin wi

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the gals ,and he wanted them to stay at hum and work."

He later found, to his cost, that when the boys finally did get out on the road they found it so bad they never came back.

Good roads are one of the greatest assets of the country. The queston is, in our present state of knowledge of roadbuilding, are we justified in expending vast sums until we know the results will be of a permanent character.

Political economists tell us that a bond issue is justifiable on two conditions only.

1. The necessity for the issue must be urgent and no other way of securing the money being possible.

2. That the benefits resulting from the use of the money thus obtained must be passed on to all parties who help pay for the bonds. In other words, if we issue road bonds and call upon our posterity to help pay for them we must, at least, bequeath to that same posterity the roads that these bonds constructed.

If we are today able only to bequeath to our successors a right of way, a memory of money carried away in dust, we most certainly are not warranted in voting for a bond issue. If we must still experiment with roadmaking let us at least pay the piper and not call upon our sons and daughters to pay for our schooling. They will have their own problems to solve.

When we voted $18,000,000 for a "state highway" we hoped that some of the questions that had proved so baffling in local and county work might be answered by expert engineers.

While we do not wish to prejudge the case it begins to look as though the highway armor plate had some weak spots, and that the terrific pounding it will receive in the next year or two will develop serious weakness.

In fact, signs pointing that way are all ready apparent in some sections.

The four-inch cement molded directly on earth foundation is breaking down either through inherent weakness in itself or lack of solidity in the soil beneath.

Then, too, the fifteen feet macadam on account of its very narrowness is proving a source of danger to the road itself.

Passing teams must, of necessity, either drive off on one side or so near to the edge that the wheel cuts a slice loose. The next load cuts a little more, until quite appreciable breaks occur along both edges of the road. These broken places allow rain water to enter and endanger the foundation of the roadbed.

Of course, we realize that our highway commissioners were actuated by the desire to make the money at their command go as far as possible, and to give to every locality a share in the public road.

We fear, however, that it will prove that the work is only a duplicate of that of past years, and that we have not yet solved the problem of building a road that is permanent, "a road that never wears out."

It might well be that the extensive work of the state university could be profitably directed into this channel.

Boys often chase the cows, not realizing the great danger and even cruelty they cause. They should be taught gentleness toward all animals, and particularly toward horses and cattle.

All of the muscle in the world would not make farming a success without the muscular energy being directed by highly trained brains. Farming has passed the time when it was an occupation and has become a profession—as large, as broad and as potent as law, medicine or theology, and vastly more pregnant in possibilities.

GOOD ROADS

BONDS: WHO VOTES THEM? WHO PAYS THEM?

IF a man called upon me and informed me that my place needed various more or less permanent improvements, and he proposed to place a mortgage upon the ranch to make them, having been legally authorized to do so, and I must pay the interest and ultimately the principal, perhaps I would not treat him with great seriousness or respect, even though he might explain that he had no property of his own to be mortgaged, but hoped to obtain well paid employment from the proceeds of mine. Yet this is about the way bonds are voted. Those whose property must be taxed to pay for them seem to have the least say about their issue.

They are easily issued. If the governing body of a political sub-division decides for a bond election they generally have following enough to carry it. The farmers are busy, stay at home, and foot the bills. It would almost seem as if the men who do the paying should do the voting.

The question whether the whole electorate should continue to have the power to decide for improvements and consequent taxation will never arise. A change would be undemocratic and unsafe. But property owners might be given the power to decide whether to pay as they go or incur debt, with the added cost of interest, flotation, etc., the etc., depending largely upon political conditions at the time. In New York and Pennsylvania it is said to be the largest part of the bill.

There is already a property qualification for voting bonds in reclamation and irrigation districts, and the supreme court of the state has upheld its legality. It might well be extended to counties and cities, if not to the state as a whole. It is sometimes good business to mortgage a farm for permanent improvements which will increase its productiveness, but not generally wise to do so for mere luxury or even comfort. Bonds should be voted upon the same principle. They should not be longer lived than the thing they buy. A 40-year bond for a road that will be rebuilt in 20 years seems poor policy. This generation is not justified in making, using, and wearing out improvements, and sending in the bill to the next generaton. They will have troubles of their own.

The detrimental effects of too heavy taxation upon the prosperity of a country are generally appreciated, and often discussed—about this time in the year. The effect of too heavy bond issues are not so well understood. The taxation for interest and sinking fund is often little less than the direct improvement would cost if made gradually, for a far shorter period than the maturity of the bonds. An increasing issue of bonds finds a less ready sale, and the rate of interest must be increased. Investment in public bonds being easy, safe and profitable, capital will be thus absorbed, and will no longer be available for financing private business enterprises, and stagnation and depression will be the result. If the credit of the state is impaired by excessive borrowing in ordinary times, it will not be good for times of great emergency, when money must be raised.

What is excessive bonding? It almost seems as if we could see the danger point upon the horizon. The $18,000,000 state road bonds are placed with difficulty, although of unquestioned validity, and with adequate interest. The aggregate outstanding indebtedness of two hundred and ten cities in California on July 1, 1912, was $85,297,510, and the bonds of the counties $52,846,981, making a total of $136,144,491. This does not include bonds of the state or of lesser or special taxation districts.

Perhaps we will have a great immigration of eastern millionaires, fired with that philanthropic desire to pay debts contracted by others, so common to this class of people, and this will get us out of the woods. But there is another million class to be considered. The state immigration commissioner says that after the opening of the Panama canal the state will receive one million immigrants from Europe annually. In five years they will be naturalized, and prepared to vote more bonds. But they will not pay them.

The world's progress depends upon the men with initiative, who originate new methods and new mechanisms, new combinations and new products.

The automobile owners of Massachusetts have contributed some $300,000 for the betterment of the highways of the State; the State treasury will contribute $700,000 more and the local appropriations for the same purpose will bring the total up to $2,500,000.

P. of H.

GRANGE AND NEWSPAPERS.

Nothing is more helpful to Grange progress than the newspaper assistance it receives so freely from every quarter; yet it receives that attention because it deserves it—from strictly a newspaper point of view; in other words, the Grange is now a powerful factor in modern life—in town, in country and in state—and the newspapers pay it corresponding respect and treat it accordingly. It is a most significant commentary on present-day Grange influence and prestige.—Grange Monthly.

A POSTAL EXPRESS.

Magnitude of the Proposed Extension of Parcel Post.

Few people realize what parcel post is meaning to this country, in the tremendous accommodation of a single day's transportations of parcels, and even the figures do not give an adequate conception of the convenience afforded to the millions of people who are the beneficiaries of parcel post.

The present parcel post law went into effect the first day of January of this year, and therefore to October 1 had been in operation exactly nine months only. Based on the packages carried in that time, the department officials at Washington figure out that 750,000,000 parcel post packages will be sent during the first twelve months' operation of the system! The figures are overwhelming and give a glimpse of what succeeding years are to bring, as more and more the system is extended, is understood and is used by the people in general.

Furthermare, the astonishing statement comes from Washington that so far the parcel post experiment has actually paid its way! Instead of being the tremendous burden of continuous expense which the opponents of parcel post declared it would surely be, the prophecy is made by the officials thoroughly informed in the matter that the close of the year's business December 31 is likely to show a parcel post profit of several million dollars, possibly as high as ten millions. From every point of view, therefore, has parcel post certainly made good all that its advocates claimed for it.

It is upon this apparently satisfactory showing of parcel post that Postmaster-General Burleson decided to order an extension of the system by an increase in weights and a reduction of rates—a move that stirred up great opposition, but which has gone into effect just the same, because the people of the country, and especially the members of the Grange, rose up in their might and demanded the enactment of Mr. Burleson's policy.

The real test of parcel post must, of course, come upon a full trial of the cost of the service under the new regulations permitting the mailing of packages up to the 20-pound limit. Undoubtedly the railroads will soon be demanding greater compensation for package hauling than they have this year received, while the plan for distributing these millions of packages by an extensive system of men, teams and automobiles in all parts of the country will constitute a problem of administration for the future of tremendous magnitude. It means simply a case of speedily providing an express equipment for doing an express business, and that means that within a very short time the government will be doing the express business of the country—a real postal express. Then will be realized the Grange ideal, so long striven for and now being rapidly approached by the only method that could ever have brought it—through a moderate parcel post beginning, steadily and logically developed toward the ultimate ideal of postal express.—National Grange Monthly.

The rice crop of the world is the largest of all the cereals, their order being rice, oats, wheat, corn, barley and rye, the total of rice in 1911 being 3,866,000,000 bushels. Of this the United States produced only 22,934,000 bushels, or less than six-tenths of one per cent of the total. Seventy-eight million, nine hundered and eleven thousand two hundred and seventy-one pounds of rice, valued at $2,046,825, were imported into Pacific coast ports.

Students at Hopkins Academy, Hadley, Mass., learn to work concrete as a regular part of their course in agriculture.

In a group of twenty-five boys taking "part-time" agricultural work in five agricultural schools in Massachusetts last year, two earned more than $300 each, twelve more than $200, and only three less than $100, from their farm produce.

Does farming pay? That depends upon the farmer. The better business man a farmer is the more successful he will be.

FREE TO LADIES—We will give absolutely free one Polibrit, the wonderful household metal polisher, for just a little information which you can furnish without any trouble. Write Sierra Purveyors, Rm 83, 1522 Pearl St, Alameda, Cal.

MERRY CHRISTMAS, with your name beautifully written on one doz. cards for 15c, 2 doz. 25c. Unexcelled penmanship. H. Weiss, Dtp. L 9 W. 117 St., New York City.

FARM FOLKS WILL find the things they need in our new catalogue. Bargains for the farmer, the farmer's wife and the boys and girls. Your address on a postal will bring you a copy. Address Millard Supply Co., Dept. F, Marquette, Wis.

WANTED—An army of live land agents. 1600 acres fine alfalfa land, Pecos valley, near Pecos, Texas. Gravity system never failing water free. Will sell first 2000 acres cleared ready to plow $100, or in alfalfa $110 per acre. Write J. E. Bogart, 3321 Woodland, Kansas City, Mo.

GOOD-NIGHT RATS! SOMETHING new. Good-night Rats is guaranteed to kill rats and gophers; money back if it fails. Try it and be convinced. Half pound sent express prepaid for $1.00. Mention your nearest express office when writing. O. K. RAT EXTERMINATING CO., 615 Plymouth ave., Minneapolis, Minn.

There are nearly 100 miles of wire in one electric sign in New York and 600 electrical horsepower are required to operate it.

If you are going in for fruit to sell on the market always choose varieties that will stand shipping. It makes a great difference whether your fruit is to be sold on the local market or shipped by cars hundreds of miles distant.

MUCH USEFUL INFORMATION
Can Be Had by Writing to Advertisers in this issue for catalogues, pamphlets and literature which will be mailed without cost.

When Your Eyes Need Care
Try Murine Eye Remedy. No Smarting—Feels Fine—Acts Quickly. Try it for Red, Weak, Watery Eyes and Granulated Eyelids. Illustrated Book in each Package. Murine is compounded by our Oculists—not a "Patent Medicine"—but used in successful Physicians' Practice for many years. Now dedicated to the Public and sold by Druggists at 25c and 50c per Bottle. Murine Eye Salve in Aseptic Tubes, 25c and 50c.
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CHILDREN'S DEPARTMENT

Edited by KATHERINE DUNLAP CATHER.

THE WAMPUM BELT.

IT was 4 o'clock and still he was not there, yet he had promised to be at the edge of the clearing not later than one. What did it mean?

Alice Allison shaded her eyes with her hand and looked up and down the frozen river. The sun gleamed on the clear white ice, making a glare that was almost blinding, but she thought little of that. Picard had promised to meet her at one, and although the afternoon was well on the wane he was nowhere in sight.

"Don't go beyond the clearing, lass," called some one from the cabin behind her. "I fear you'll have to wait another day, for it looks as if Picard has forgotten."

It was a musical voice, the soft, finely modulated one of an English gentlewoman, and the girl answered in the same well-bred tones.

"Yes, mother, I'll stay here. I know he will come unless something has happened, for he never breaks his word."

And still she waited on the bank.

It was on the shore of the Maurice river, not far from where that shining stream meets its parent, St. Lawrence. There Brentwood Allison had built his cabin five years before, and with his wife and little daughter founded a home in the wilderness. It was a grave undertaking, and the struggle to keep its hearth fires burning had lasted through every day of that long period. The French and Indian war was just over, and while the forest tribes had little love for the sons of France, whom they regarded as trespassers o ntheir domain, they had less still for those of England, and more than once the Allisons had fled before savages on the warpath, and returning, found their cabin in ashes. Alice was eight years old when they sailed down the river on the boat that had carried them from England, and so much had happened since then that it seemed as if she had always lived in the Canadian woods. It was a lonely life for her, for they had no neighbors nearer than those at the settlement two miles away, and but for Picard de Leon, a half-breed boy, about her own age, she would have had a dreary time indeed. But Picard put much interest into her days.

He was the son of a courrieur de bois, one of those strange men, half French, half Indian, who were the hunters and trappers of that region in those days. His mother was full-blooded Algonkin, and his Indian blood made the tribes friendly to him, so he could go wherever he liked in safety, and Alice's parents knew that no harm would come to her from redskins when she was with the half-breed boy. So all summer long they scoured the woods for flowers and wild berries and fruits, and in the winter played games in the snow. Today he had promised to take her to see a waterfall that had turned to a fantastic mass of silver in the freezing process. That is why she looked with such eager eyes toward the south. Perhaps even yet she might see him come whistling round the gap.

But at last she gave up all hope of making the trip that day and turned to go back to the cabin. But just then a weird cry reached her ears, the wild greeting song of the courrieur de bois, and she knew Picard was some where near.

"I was sure he wouldn't fail me," she thought as she started in the direction of the sound. And a minute later he bounded into the clearing.

"What makes you so late?" she asked, pointing to the sun.

The boy looked at her with such earnest eyes that she knew some serious thing had happened.

"Shosheenah loose his wampum belt," he answered in his broken English.

"Lost his wampum belt," Alice questioned. "How"?

"I don't know," came the answer. "Belt gone. Nod Shagoonah much sick, and Shosheenah no have belt for powwow and make her well."

Alice's eyes grew wide in amazement, for that was serious indeed. She knew very well the story of the wampum belt, and the power the Indians along the river supposed it to possess. Once it had belonged to Hoogonah, the mightiest medicine man of the Algonkins, and in dying he had left it to the one who was to take his place as healer and master of powwows. After many years it had come to Shosheenah, and when he girded it about him, and said the charm words over a sick person, the Indians were sure the afflicted one would recover. But now it was gone, and Shagoonah, the chieftain's daughter, was very ill.

"All day they hunt, but not find, and Mowah much cross. He think maybe white man steal belt from Shosheenah's wigwam, and say it not come back before moon comes over river, they go and burn cabin."

Alice forgot all about the frozen waterfall. She was an English girl, and had been taught not to believe in the superstitions of Indians and half-breeds. But she knew their strong faith in the power of the wampum belt, and knew, too, that if Mowah, the chief, suspected that her father had caused it to disappear, nothing would save them from an attack. They had fled to the blockhouse before, and she realized what it would mean.

"What can we do?" she asked in dismay. "Father did not take the belt."

"Go tell him Mowah think he steal it. Maybe then he bring the glass that sees far and help hunt."

But Alice shook her head.

"He is not at home. This morning he went to the post up the river and will not be back until late tonight. But Picard, I know he did not take it."

The half-breed shrugged his shoulders.

"So I think, but Mowah say yes."

Alice thought in silence for a moment, then asked, "Where did you look?"

"All around, far," the boy replied, sweeping his arms in a semi-circle to describe the extent of the search. "But no find."

They hurried along the river bank and into the woodland, peering to right and left as they went along. The many tracks in the snow proved that the Indians had covered that ground well, and to go over it again seemed useless. But the belt must be found. She knew what would happen if it were not, and could almost see the half-naked savages leaping into the clearing, their swarthy faces demon-like as the flames caught the cabin in great, fiery arms.

They had come to where the wood was deeper and much underbrush grew between the trees. There were no tracks there, and Alice knew why it had not been covered in the search. For almost a mile to the south that part of the forest was supposed to abound in evil spirits, and nothing, not even the glittering things the Indians liked so much would tempt them into it. They hurried by with frightened looks, as if fearing the imps would rush out and seize them as they passed.

Alice pointed to the snow unbroken by any foot prints, and asked, "Did you go in there?"

"No, no," Picard replied in the low voice of one afraid. "Not in there."

Being free of Indian superstition Alice had no terror of the spot. Of course it was dark and gloomy because of the trick growth, and there might be wild animals in the brush. But compared with the horror of an Indian attack her fear of that danger was small indeed.

"I am going to look," she said.

Picard caught her arm as she started.

"No," he exclaimed. "Spirits in there."

But Alice shook her head.

"Father says not."

"Yes," the boy insisted. "My grandmother say never go near. You not go there."

But Alice was determined, and replied, "Picard, I tell you there are no spirits in there, but even if there are they won't hurt an English girl. Wait here until I come back, for I am going in and look."

And without another word she hurried toward the dreaded spot. Past fir and tamarack trees she went, and Picard looked with frightened eyes as she made her way into the thick growth. He wanted to run away, but Alice called again for him to wait, and as if fearing to disobey a voice that came from the haunted region, he stayed in his place.

For some minutes she hunted, past one tree after another, looking carefully at each spot of ground and bit of brush. Years in the woods had trained her eyes to keenness, and she scanned every inch like a young Indian. But there was no sign of the belt.

The thought of failing in the search filled her with terror, and tears came into her eyes. But just them she saw a bit of brightness on a bush. She ran over to the place, and all the world seemed bright again, for hanging on a twig about a foot above ground was something that glistened as the rays of sunlight touched it, throwing out gleams of red and emerald. There it hung, as if waiting to be plucked from the branch, and she gave a shout of delight as she caught it up, for it was the missinging wampum belt.

"I have found it, Picard," she called, her breath coming fast as she thought of what it meant.

The boy pricked up his ears.

"No, yes?" he asked.

"I have found the belt. It was hanging on a bush in here."

Picard could hardly believe that Alice was sound and well after going into a part of the wood so feared by forest folk, and he looked at her again and again as if at loss to understand how she could walk along just as she did before. The Indian superstitions were strong in him, and all his life he had been taught to dread the enchanted spot.

"You not see spirits?" he asked as she came to where he stood.

"Of course I didn't. I told you there were none in there."

But still he looked at her as if the whole thing were past believing. Then, pressing his fingers on the magic girdle he said, "We take it to Shosheenah."

Twilight was coming on, and darkness in those woods was very thick and black indeed. But Alice thought only of getting the belt to the Indians. Every minute's delay meant danger, so they hurried on under the leafless trees to the wigwam of the chief.

The sick girl lay on her couch of skins, looking with wan eyes at the women who chanted the healing songs around her, while the dark faced father stood by with folded arms and sorrowful face. Shosheenah, the medicine man was going through the powwow, but not with the vim he usually put into it, for he believed in the power of the belt, and thought his words would be of little avail without it.

A brave saw Alice and Picard come near, and hurried in to spread the news and angry murmur went among the Indians at the word the English girl was coming near. But she was with Picard, their friend and kinsman, and they must not molest her.

The boy called out in the tongue of the tribe, telling the story of the recovery of the belt, and how Alice had gone into the place where even the bravest among them would not set foot. For a minute there was silence, as the girl handed the girdle to the medicine man. Then all broke into a weird song of rejoicing.

The chief slapped her on the head, in the Algonkin sign of approval, and spoke some words to a young Indian. The latter glided out of the wigwam, and soon reappeared with a pile of pelts.

Then, speaking to Picard, Mowah bade him give the message.

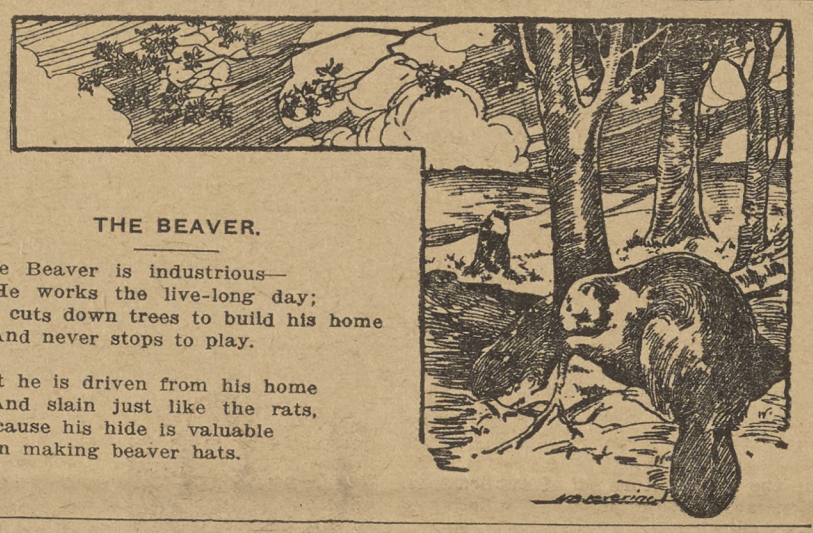
"He say you take all we can carry," the boy explained. "Pelts thick and warm, and worth much wampum."

As Alice looked at the pile of skins, she thought of how much they would bring at the trading post, more money than her father could get in a whole year, and then of the attack that might have been made on their home that night.

Hurrying back to the cabin they told of the hunt in the forest, and of the Indian suspicion that her father had caused the belt to disappear, and there was no happier family in New France than the one in the cabin on River Maurice.

The chieftain's daughter recovered, and although she probably would have if the belt had not been found, the Indians were sure that her returning health was brought by the recovered treasure, and were full of gratitude to Alice Allison.

Just how it came to be in the bush was never known. Alice's father reasoned that Goohnah, a half-witted Indian boy, must have carried it away from the wigwam, for no other member of the tribe would have touched the sacred thing. But what mattered most was that it was found. For from that time forth there was friendship between the red men and the family in the clearing. Never again did the Allisons have to flee before Indians on the warpath, and return to rebuild a fire wrecked home. For forest folk have good memories and much gratitude, and they did not forget that it was a blue-eyed Engilsh girl who went into the enchanted wood where even Mowah, the mighty chieftain was afraid to go, and brought out Shosheenah's wampum belt.



THE BEAVER.

The Beaver is industrious—
He works the live-long day;
He cuts down trees to build his home
And never stops to play.

But he is driven from his home
And slain just like the rats,
Because his hide is valuable
In making beaver hats.

PUZZLE CONTEST.

Answers.

1. Scattered Petals: Lily, Rose, Pansy, Daisy, Carnation, Chrysanthemum, Nasturtium, Geranium.
2. Quotation:

"Hearts that feel and eyes that smile,
Are the dearest gifts that Heaven supplies."

3. Riddle—A dictionary.

Winners in Contest.

() (2) Margaret Carmody, Santa Clara; (1) (2) Kate Walsh, Los Gatos; (1) (2) Lorraine Worrall, Santa Clara; (1) (2) Elizabeth P. Hall, Palo Alto; (1) (2) Lois Horton, Morgan Hill; (1) (2) Laura S. Webb, Escondido; (1) Fances M. Weber, Oceano; (3) Annie Adams, Marshall, Marin County.

(Send in your puzzle answers promptly if you wish your name to appear in the monthly list, as they are printed in the first issue of the month. —Editor's Note.)

THE COPO DE ORO CLUB.

Dear Boys and Girls: Still the letters come, some from the north and some from the south, everyone of which is very interesting and welcome. If you really want to be in touch with boys and girls in other places, write and say so, telling about yourself and what you like.

Who has the best time, boys or girls? I want to know, and the only way in which I can find out is for you to tell me. So write what you think, and then watch for your letter in the letter box.

I am going to have a surprise in store for you next week, a very delightful one for those who have written or sent more than one set of puzzle answers. Are you curious to know what it is?

THE CHILDREN'S EDITOR,
24 W. Santa Clara St.,
San Jose, Cal.

THE LETTER BOX.

Poway, Cal.,
Oct. 20, 113.

Dear Children's Editor—I live in the country and like it much better than in the city. I am ten years old and have lived in the country all my life. I have any number of reasons why I like it better. There is more room in the country. In the city you have a little lot, which is not half enough room to play in, with maybe a couple of trees. But in the country you can have all the trees you want, and what's more, all kinds of fruits and melons growing around. I love to climb hills and ride horses. I am the only girl in the family, but have three brothers, all older than myself. My oldest brother goes to college in Berkeley and my other brothers go to high school in Escondido. I have a dog and cat. The dog's name is Joe and the cat's name is Blacky. She is all black. I like to read the "Children's Department" very much, and thing "Copo de Oro" a very pretty name for it. I also am glad that a girl about my own size thought of it and not a big girl. I hope that my letter will be printed, for I am sincerely your little friend,

MARY KENT.

Ventura, Cal.,
Nov. 2, 1913.

Dear Children's Editor—I live in town and like it very much. Maybe some country children have a better time than I have, but I don't think many do. We have a big back yard and I have three dogs and a pony, and I can ride horseback.

And I go to the public library almost every day and read. In the country you don't have a public library, and the houses are so far apart. I like to live in town. Your friend,

JOHN THOMAS.
(12 years old.)

PUZZLE.

Jumbled Name—Liphaiplead.

EDUCATIONAL

SCHOOL HOUSES AS CIVIC CENTERS.

Assembly Bill, No. 16.

An act providing for the free use of all public school houses and property and to establish a civic center at each and every public school house in the state of California, and to provide for the maintenance, conduct and management of the same.—(Approved June 6, 1913).

THE people of the state of California do enact as follows:

Section 1. There is hereby established a civic center at each and every public school house within the state of California, where the citizens of the respective public school districts within the said state of California may engage in supervised recreational activities, and where they may meet and discuss, from time to time, as they may desire, any and all subjects and questions which in their judgment, may appertain to the educational, political, economic, artistic and moral interests of the citizens of the respective communities in which they may reside; provided, that such use of said public school house and grounds for said meetings shall in nowise interfere with such use and occupancy of said public school house and grounds as is now, or hereafter may be required for the purposes of said public schools of the state of California.

Sec. 2. Lighting, heating, janitor service and the services of a special supervising officer when needed, in connection with such use of public school buildings and grounds as set forth in section one of this act, shall be provided for out of the county or special school funds of the respective school districts in the same manner and by the same authority as such similar services are now provided for. Such use of the said school house, property and grounds shall be granted free; provided, that in case of entertainments, where an admission fee is charged, a charge may be made for the use of said school house, property and grounds.

Sec. 3. The management, direction and control of said civic center shall be vested in the board of trustees or board of education of the school district. Said board of trustees or board of education shall make all needful rules and regulations for conducting said civic center meetings and for such recreational activities as are provided for in section one of this act; and said board of trustees or board of education may appoint a special supervising officer who shall have charge of the grounds, preserve order, protect the school property and do all things necessary in the capacity of a peace officer to carry out the provisions and the intents and purposes of this act.

FOR BETTER PIGS, POULTRY AND PEOPLE.

The program has just been announced for "ministers' week" at the University Farm at Davis, December 1 to 5. Here are some of the things to be discussed by experts:

How the country school may train boys and girls to become prosperous and contented farmers instead of poor clerks and stenographers in crowded cities.

How a dairying community may enrich itself by forming a cow-testing association that will show the farmer, which of his cows are not earning their keep.

How health for man and beast may be preserved by good farm and village sanitation, by vaccinating swine against hog cholera and men against typhoid (the University of California pathology department will send anti-typhoid vaccine free to any physician), and by giving wives and mothers proper houses to live in and proper labor-saving conveniences.

How to pick out a good cow or sheep, how to feed laying hens and growing children, how to select and plant superior seed, how to bud fruit trees so as to get the finest fruit, and how to improve the human race.

How to make school, church, grange, marketing association, drainage district, neighborhood club, and other co-operative agencies of the greatest possible usefulness in California country life.

To this "ministers' week," at Davis, December 1 to 5, the University of California has invited all interested in developing the moral and spiritual forces of country life. The purpose is announced by the university to acquaint clergymen and other moral and social workers with agricultural problems and practices in California of today, so that more efficient co-operation may be brought about for developing a better and broader rural life.

A "tent city" will be erected at the University Farm for the accommodation of those who attend "ministers' week." Free accommodation in tents, including cots, bedding, etc., will be provided by the university. Those who prefer may rent rooms in the adjoining town of Davis. Meals will be furnished in the University Farm dining hall at one dollar a day. Clergymen or any others interested in the great social problems of California farm life are asked to notify the University Farm at Davis of their coming so that proper accommodations may be assured.

Some of the topics for discussion and demonstration will be "Judging Beef Cattle," "Grapes in California," "Selecting a Poultry Farm," "Soil Survey of California," "Irrigation," "Poultry Houses," "Citriculture," "Rural Schools," "Budding Grafting and Making Cuttings," "Pruning Grapes," "Country Life Movements," "Pickling Olives," "Judging Sheep," "Rural Sanitation," "Ornamenting Home Grounds," "Socializing the Country School," "Forage Plants and Grasses," "Improving the Human Race," "Good Roads," "Spraying," "County Farm Advisers," etc., etc.

A complete program may be obtained by addressing Professor C. W. Woodworth, at the State University, Berkeley.

FREE PUBLICATIONS OF SPECIAL INTEREST TO FARM WOMEN.

FOLLOWING its policy to aid farmers' housewives the department of agriculture has recently issued a list of free publications which apply particularly to women's work. These bulletins are furnished free on application to the editor and chief of the Division of Publications, United States Department of Agriculture, Washington, D. C.

There is one class of bulletins dealing with dairying, while others especially concern butter, cheese, cream and milk. Among the bulletins dealing with milk are the following:

The care of milk and its use in the home.

Ropy milk and cream.

Bitter milk.

Clean milk.

Milk supply of cities.

The covered milk pail.

Cost of market milk.

Lacto, a new and healthful frozen dairy product.

Bulletins on the subject "Drugs" are entitled:

Harmfulness of headache mixtures.

Habit-forming agents; their indiscriminate sale and use a menace to the public welfare.

There is a set of bulletins dealing with bees; a set dealing with birds, and another set dealing with such household insects as the ant and the flea. Guinea pigs, rabbits and rats also have each a bulletin devoted to them, and particular attention is given to poultry.

Farm conveniences in general have one set of bulletins to describe them, and Farmers' Institutes another. Hints on how to prepare foods cover a wide range of subjects, including apples, banana flour, bread, cereal breakfast foods, clams, coffee substitutes and corn. There are 12 bulletins devoted to canning and preserving; while the fireless cooker is the subject of a separate bulletin.

Fruits and flowers each receive their merited share of attention. Annual flowering plants, directions for making window gardens, china asters, garden sweet peas, peonies and rose slugs are subjects treated in the floriculture set; while the blueberry, grape, melons, the mulberry, the raspberry, the roselle and the strawberry make up the fruit culture set of publications. Vegetable culture includes bulletins on asparagus, celery, cucumber, mushrooms, okra, rhubarb and tomato.

Trees, school gardens, roads, paint and whitewashes, industrial alcohol and water are samples of the wide range of subjects of these publications which the department will send free to the farm woman on application.

Because of the limited supply, applicants are urgently requested to ask only for those bulletins in which they are particularly interested. The department cannot undertake to supply complete sets, nor may the applicant ask for more than one copy of any publication for herself.

In applying for these publications, first send for the list and then indicate from this the name of the series and serial number of the bulletins or circulars that are desired.

Garden Grove, Orange county, is a wide-awake community. The largest onion set farm is there and they raise Chili peppers by the carload. Whether or not their activity is related in anyway to these stimulating vegetables is not advertised. They also raise other garden truck, and walnuts and oranges, The average shipment of eggs per day is 21,000.

MEDDLING IN MEXICO MISCHIEVOUS AND MISTAKEN.

By Edward Berwick.

THAT so many editorial columns decry and deprecate the constant, clamorous call to arms of the yellow press is a "cheering sight to see." For American investors in Mexican lands, mines, railroads, etc., the clamor for armed intervention (which, of course, means war) seems to a sane man simply suicidal. Not only would such intervention be the signal for a general looting and burning of American property, but also probably for the entire confiscation of real estate held by the enemy, of which the expropriation of lands in the Balkan war has been the latest example. From the standpoint of American ethics Mexico has as much right to work out her own destiny in her own way as had the United States during the war of the rebellion; and as much right to resent interference with indignation as had President Lincoln's cabinet.

From a merchant's point of view what can be more undesirable than wantonly to offend good customers, unless it be the wholesale murder of those same customers?

As to the Monroe doctrine obligations, Monroe formulated that doctrine with one intent, to keep this country forever free from the perils of the European curse of militarism, with its endless dynastic wars of ambition. He never once had an idea that his statement of policy involved the use of the army of the United States as a cats-paw to pull chestnuts from the fire for the sake of European bondholders.

Lastly, "there never was a good war or a bad peace."

Pacific Grove, Cal., Nov. 10, 1913.

In Wisconsin seventy-two towns have entered a state-wide social center organization.

THE TRUE BOOSTER.

IF you like the old town best
Tell 'em so.
If you'd have her lead the rest
Help her grow.
When there's anything to do
Let the fellows count on you.
You'll feel bully when it's through,
Don't you know!

If you want to make a hit
Get a name.
If the other fellow's it
Who's to blame?
Spend your money in the town
Where you pull the sheckles down.
Give the man who kicks a frown.
That's the game!

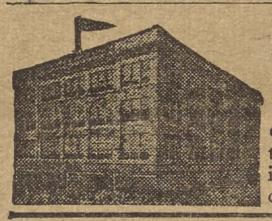
If you're used to giving knocks
Chang your style.
Throw bouquets instead of rocks
For awhile.
Let the other fellow roast.
Shun him as you would a ghost.
Meet his hammer with a boast
And a smile.

When a stranger from afar
Comes along
Tell him who and what we are.
Make it strong.
Needn't flatter; never bluff.
Tell the truth, for that's enough.
Join the boosters—they're the stuff!
We belong.

—Cincinnati Commercial Tribune.

Notwithstanding the troubled conditions in Mexico, 167 new government schools for the native population have been organized in the various states, according to a statement on Latin-American republics in the annual report of the commissioner of education.

As a result of a vigorous corn campaign waged by the Philippine bureau of education at Manila, there has been a decided increase in the production of corn, and a large decrease in the use of rice, formerly the chief article of diet in the archipelago.



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Can Be Had by Writing to Advertisers in this issue for catalogues, pamphlets and literature which will be mailed without cost.

A folder of receipts in every can.

Ghirardelli's Ground Chocolate

Use it for many purposes.

As a flavoring for puddings, ice cream, candy, cake, iceing and sauces, Ghirardelli's Ground Chocolate is unequaled for its delicate and pleasing flavor. And as a health beverage it is in a class by itself. So simple to prepare, so economical—so many practical ways to serve and use this beverage food product.

D. GHIRARDELLI CO.
San Francisco Since 1852

A sample can mailed free for the asking, will convince you of its quality.

MAKING THE WASHING EASIER.

Mrs. John Y. Beaty.

MOST women do the repairing of cloths after they have been washed. There is an advantage, however, in doing this beforehand. If buttons are sewed on and repairs made before the clothes have been washed, they will present a much better appearance after being ironed

In order to do this it will probably be necessary to postpone the washing until Tuesday in order that the repairs may be done on Monday.

It is always worth while to soak the cloths over night before washing. My method is to put the white cloths in the boiler, fill the boiler with water, put in soap or washing powder, set the boiler on the stove and the first thing in the morning start the fire. By the time breakfast is over, the clothes in the boiler are ready to be wrung out. This saves a great deal of time and enables me to get the washing done before dinner.

About half a cup of kerosene or borax or a tablespoonful of turpentine should be added to the water in which the cloths are boiled. This has a tendency to make them much whiter. If kerosene or turpentine are used be sure to add them before the water is heated. There is danger with these chemicals around fire.

Some women have wondered why their clothes were yellow after they were washed. This is usually due to the fact that soap was not thoroughly rinsed out of them.

At various times I have had a maid on whom I have depended for the ironing. I never have had one, however, that could iron the table linen to suit me. I finally came to the conclusion that the reason is, the linen is wrung through the wringer and the wrinkles which are formed by the wringer are very hard to remove by ironing. I found the best way to treat table linen is to wring it by hand and then iron each piece with the greatest of care.

Never rub flannel garments with soap or on a board. This takes away the softness. The way to clean them is to make soap suds and allow the water to cool until it is just tepid then souze the woolen clothes up and down in this. Usually after such a treatment, the dirt wrings out of them if the wringing is done by hand. If the wringing is done with a wringer, too much water is removed and the garments are likely to shrink. When wringing by hand, not all of the water is removed and if they are hung on the line a little wet they usually do not shrink.

Although I have never tried it, I have been told that a handfull of green peach tree leaves tied in a cloth or bag and boiled with the cloths will make them white.

To remove grass stains, saturate the stain with molasses and then wash with soap and water.

Blood stains may be removed by soaking with glycerine.

Ink stains should be soaked in sour milk and coffee.

PLACE OF FRUIT IN THE DIET.

IN most families fruits are commonly thought of as a food accessory, and are prized for their pleasant flavor or for supposed hygienic reasons rather than for their food value; yet a study of available figures shows that they constitute a by no means unimportant part of the diet, since they supply, on the basis of recent statistics, 4.4 per cent of the total food and 3.7 per cent of the total carbohydrates of the average American diet. With a view to learning something more definite regarding the possibilities of fruits as sources of nutrients, the relative cost of nutrients supplied by fruits and other foods, the digestibility of a fruit diet as compared with an ordinary mixed diet, and related questions, extended investigations were undertaken at the California Agricultural Experiment Station by Professor M. E. Jaffa, the work as a whole being carried on in co-operation with the nutrition inestigations of the Office of Experiment Stations. In the first series reported six dietary studies were made with fruitarians—two women and four children who had lived on a fruit and nut diet for several years. The dietary studies covered from twenty to twenty-eight days, and the daily food consisted of different combinations of fruits and nuts, of which the following day's ration may serve as a sample: 475 grams apples, 110 grams bananas, 850 grams oranges, 5 grams dates, 2 grams honey, 10 grams olive oil, 55 grams almonds, 70 grams pine nuts and 50 grams walnuts.

THE HOUSEHOLD DEPARTMENT

THE CONVERSATION AT MEALTIME.

DURING the past two weeks two men have expressed themselves to me rather freely on the same subject—namely, the atmosphere in their respective homes at mealtime. One is a prominent business man, and the other lives on a farm.

The city man was disserting on the fact that a doctor had just told him he had nervous dyspepsia. "And why shouldn't I have it Almost any human being would if he ate two out of three meals a day listening to a recital of all the unpleasant things which had happened in the house during his absence. This being told during the soup course that the maid dropped my pet pipe and it broke in a hundred pieces; hearing while the meat is being served how fussed my wife is because Mrs. Brown is giving a party and hasn't asked her; during the salad course the comforting news is handed out that there is a case of measles in our neighborhood and probably our children will get it; while we are eating the dessert, my better half breaks it to me that she simply has to have another winter suit. At the conclusion I am in such a state of upset that I grab my pipe and escape to the porch or den.

"Nervous dyspepsia, of course, is the outcome. They talk about restaurant cooking giving the American city man dyspepsia. That isn't the case with the men I know. The only meals they really enjoy, and consequently digest well, are those eaten at the restaurant. At noon a crowd of us are together. We jolly, laugh and forget that there is any such thing as work or worry. Of course, I realize my wife doesn't see very much of me except at mealtimes, but as a usual thing the evening is free. If only the domestic problems could be held over until then. I'm so sick and tired of it all that I have recently had framed a new dining-room motto:

" 'Keep your troubles to yourself during this meal. This food cost too much to spoil by troubles.'

and I am hoping for results."

The country man was visiting with me while we enjoyed the bountiful meal the grange was serving that day. "Yes, we do have good dinners here at the grange, and how we all enjoy them. There isn't anyone can beat my wife when it comes to cooking, so it isn"t what we have to eat that makes them seem so enjoyable to me, but it is just that we are laughing, visting and having a good time while we're eating.

"My father was very strict with us and brought us all up on the old theory of children being seen and not heard, especially at the table, even when we were pretty sizable young people, and do you know, to this day I find it difficult to talk at the table. My wife was brought up in much the same way. The consequence is there is very little conversation carried on while we eat our meals, but I surely do wish it were different."

We have all been in families where one or the other condition obtains. It is usually up to the mother, as it is in so many things, to take the lead in this matter. As it is primarily a question of health, it should not be poohpoohed at or set aside as unimportant. Any physician will tell you that pleasant conversation and laughter are important aids to digestion. The gastric juice in the stomach is poured out in greater abundance under these favorable conditions, and the food more quickly and easily digested.

Save up all the pleasant things you have heard to tell at mealtime; a funny bit of verse, a joke or a quaint saying of babies. Any one will start the ball rolling if nothing else is available. If you are not one of those fortunate mortals who can see even quite serious troubles in a funny light, at least you can refrain from discussing at the table the unpleasant things of the universe.

The time spent at the family board should be one of the pleasantest memories our children will carry with them in their future lives. Serve good, nutritious food, but see to it that it is seasoned with plenty of fun and wholesome conversation.

CABBAGE CHOPPED WITH PORK.

For a small head of cabbage use about half a pound of mixed salt pork. Boil the pork gently for three or four hours. Prepare the cabbage as for plain boiled cabbage. Drain well and put on to boil with the pork. Boil rapidly for 25 to 45 minutes. Serve the pork with the cabbage. The vegetable may require a little more salt.

Smoked bacon or ham may be substituted for the pork. Cabbage may be cooked in water in which corned beef was boiled.

HINTS FOR THE HOUSEWIFE.

Onion Flavor.

To give roast meats and dressing the best flavor from an onion, cut the onion in small pieces and fry to a light brown in a small bit of lard or butter, then add this to your dressing or pour over the cooking roast.

To Keep Silver Bright.

A small quantity of camphor gum, if placed in a silver chest of polished silvery, will keep it bright for a long time.

Suet.

Suet may be kept fresh for a couple of weeks if covered well with flour.

To Renew Soiled Chamois Skins.

Soak in a solution of washing soda, then let stand in soapsuds fr a couple of hours, then rinse thoroughly, having the last water of suds and soda.

Candied Orange Peel.

Gives a delicious flavor when added to fruit cake, mince meat or plum puddings.

Coffee Stains.

To remove coffee stains from your table linen apply glycerine, rinse in lukewarm water, then press on the wrong side until dry.

To Remove Grease Spots.

Make a paste of Fuller's earth and turpentine and apply on the spot, rubbing well until the turpentine evaporates, which leaves but the white powder. This you can easily remove with a good brush.

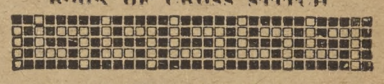
Sugared Pop Corn.

Make a syrup by boiling together two teacupfuls of granulated sugar and one teacup of water. Boil until the syrup strings from the spoon or hardens when dropped into cold water. Pour over six quarts of freshly popped corn and stir well.

The more yelling a man does the less forcible he becomes.

We should learn something daily.

BOOK OF CROSS STITCH



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W. B. Conkey Company
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HAMMOND, INDIANA

THE HOME DRESSMAKER

THE HOME DRESSMAKER.

IF the armholes of your new blouse are less than three-quarters of a yard around, comes the word from abroad, the garment is passe and unmodish. All the smart new blouses have enormous armholes, emphasized with cording or stitching. No. 5379, the model I have chosen to represent the new style—which, by the way, I showed in a costume last week—has also the new yoke effect and may be developed in a dozen materials, trimmed or left plain as the wearer may desire.

As illustrated the blouse is developed in a figured silk, small cuffs, vest and crush girdle of plain contrasting messaline, the shield, standing collar and undersleeves of dainty shadow lace. Another model patterned after the same blouse was of Persian printed velvet in warm rose and dull blue tones. Pleatings of wide gray chiffon trimmed the vest, cascading down in soft folds against the transparent vest of dull blue chiffon over the rose. (This fad of placing several fabrics in various shades one above the other, is, by the way, adapted from the fashions of Greece of a century ago. In these days one trailing transparent gown was worn over another, embroidery over embroidery, and fringe over fringe). About the wrists of the long velvet sleeves were narrower ruffles of the chiffon. Uncut velvet, a particularly rich-looking fabric, will be a favorite material for the blouses this winter, and would make a stunning blouse developed in this model.

In costume 5336 is shown the new wide armhole sleeve in another form—outer back, yoke and sleeve being cut in one piece. Here again, too, is the vest effect in contrasting revers of different material, and the quaint and charming arrangement of girdle or sash, which, caught directly in front by a rosette, slips loosely over the hips, and, knotted at the back, falls almost to the hem of the skirt in fringed, uneven ends. A double tunic, slightly gathered to give the flaring effect seen in so many of the Paris models, covers the draped skirt of contrasting color and different material almost to the knees.

The slashed and draped skirt showing a fascinating glimpse of brilliant silk petticoat has brought these garments into prominence. All are snug-fitting. Very little adjustment is made at the waistline, many models being fastened with snaps from the waistline down to the end of the placket. Flouncings are scant, the measurement at the bottom exceeding two yards. If the material is very soft, a quarter-yard extra is permissible.

There must be no bulkiness about the ankles. Crepe de chine is a favorite material, made up in white or any shade to harmonize with the dress. Some have medallions of lace, and some are cut in Vandykes, with soft silk below the points. Pastel shades in crepe de chine skirts have lace flounces ornamented with ribbon, lace, chiffon, flowers and lace motifs. These petticoats are worn under sheer dresses as a lining and petticoat combined.

Black and navy-blue petticoats are trimmed with bright-colored bands. Petticoats with silk Jersey tops are usually made with the tops in a darker tone with a lighter or contrasting colored flounce of colored silk, striped messaline, changeable effects, crepe de chine or lace. Never was there a time when all under garments were more important than they are now, for upon them the whole good appearance depends.

Nainsook, handkerchief linen and batiste are fashionable fabrics for underwear. Cluny, Irish and Torchon laces, together with Valenciennes and the newest shadow laces, are used as trimmings. When making up any under garments the main object is to dispense with every inch of material that is possible.

A touch of color in lingerie is adopted by some women, daffodil color, for example, being made in chiffon trimmed with pure white Valenciennes and touches of this color in ribbon and rosettes are introduced on one's "dream robes." Some of the "ultras" are using swansdown and fur on their lingerie, and one "dream robe," a sheer China silk affair had neck and short sleeves and hem bordered with pale pink swansdown, while a pair of quilted slippers in pink satin edged with swansdown and a love of a nightcap with the swansdown framing the face made an extremely dainty "set" provided for a bride's trousseau.

The favor fur is finding among fashionables this season has led to some surprisingly clever imitations of short-haired furs in manufactured fabrics that come by the yard. Most of them come high, too, as do real furs.

5355—Ladies' Costume. Long or short sleeves, adjustable shield, high waistline, attached four-piece skirt with plaits inserted between front and back gores. Width about 1 7-8 yard. Sizes 32, 34, 36 38, 40, 42, 44 and 46 bust. Size 36 requires 4 yards 44-inch material, with 5-8 yard 18-inch net for shield and standing collar. Price, 15 cents.

One fabric shown is made of a black silk caracule and has a good deal the appearance of Persian lamb. But the savage barbarity which characterizes the production of Persian lamb is utterly absent from this loom-made material, and it is always a comfort to know that one can wear a pretty thing with a clear conscience. Another advantage of these manufactured "furs" is that they are lighter than the furs, hence better suited to California climate.

Do not think, however, that these "fur fabrics" are taking the place of the real article. Oh, no, indeed. Furs are distinctly "the" thing this year—more so than for a long time, and fur in winter is always fashionable—but there are some—many—who cannot forget the cruelty, the torture that is endured by these little fur-bearing animals who are trapped and often held in misery until starvation relieves them. And to these, who will not wear this badge of man's cruelty to animals, the "fabric furs" are a splendid substitute.

Velvet is much used in combination with fur, and velvet muffs edged with fur are being shown and bid fair to become as popular as fur muffs edged with ruffles of velvet. One effective velvet trimming takes the form of a velvet chain, made of loops of velvet cord, formed by rolling a two- or three-inch strip of velvet. The loops of the chain measure two or three inches across. And the chains are festooned across the face of muffs, or to finish collars, and make a most effective trimming.

Cardigan jackets with V-shaped neck, worn under coats, add greatly to the warmth and give the vest effect which is so much sought after. These little jackets come in various shades, and may be had either with or without sleeves.

Though the men disclaim the idea of slavishness to fashion, the "slit trousers" with ankle watch has appeared in more than one city; and hats sprouting whole handfuls of feathers the back, side or front, as fancy may dictate or vanity decide, are among this season's "fashions" for masculinity.

A noticeable feature of the tango is that most of them may be worn with the ordinary dress girdle, as they tend rather to encircle the hips.

OUR WEEKLY FASHION SERVICE

5336—Ladies' Waist. Outer back, yoke and sleeve in one piece. Sizes 32, 34, 36, 38, 40, 42 and 44 bust. Price, 15 cents.

5337—Ladies' Skirt. Hight waistline. Three-piece foundation and draped section in one piece. Width of foundation, about 1 1-2 yards. Sizes 21, 22, 24, 26, 28, 30 and 32 waist. Price, 15 cents.

As illustrated, entire costume in medium size requires 2 1-4 yards 40-inch plain material with 4 1-4 yards 40-inch fancy material.

5379—Ladies' Waist. With lining having long one-piece sleeves which may be omitted. Closing in front. Sizes 32, 34, 36, 38, 40, 42 and 44 bust. Size 36 requires 2 3-4 yards 27-inch material, with 1 yard 18-inch all-over lace for shield, standing collar and undersleeve facing, and 5-8 yard 18-inch contrasting material for vest and cuffs. Price, 15 cents.

Address THE CALIFORNIA FARMER, 24 W. Santa Clara St., San Jose, Cal.

No .....

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Size ....

NOTICE—All persons sending for patterns must be sure to give name, full address and number of pattern distinctly written. Until this is done delay is caused and satisfaction can not be expected.

Patterns delivered on mail orders in two or three days.

The tango belt comes in as many colors as a chameleon and has a well-nigh endless variety of shapes. It can always be known, however, by its striking novelty of appearance and its tendency to come down on the hips. The diagonal curve across the front, where the belt fastens, is one of the newest models.

The "Sultana sash," one of the newest freaks shown, falls from the girdle in the back, catches the bottom of the skirt and, brought up in front, fastens with two big fancy buttons to the girdle, giving the effect of a veritable "Turkish trouser" gown.

"Pink hair" and harem veils are the two fashions over which Paris has just gone mad, according to Mary Garden, who has just "come over."

One of the newest tango belts is developed in Robin's egg blue velvet, the long sash at the left being made of charmeuse in the same shade of blue as the velvet. It is lined with white kid, which gives firmness combined with flexibility. The edge of the belt is piped with charmeuse and there are velvets buttons in front, over the clasps.

Sashes are not worn draped around the hips as in the summer, but are drawn around the waist and tied in some conspicuous way with a large bow which is usually placed squarely in the middle of the back rather like the Japanese sash. The chic sashes have large loops and no ends.

The very newest girdle is a strip of tiger skin—or leopard, if you prefer.

"THE MIDLANDERS"

By Charles Tenney Jackson

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Synopsis of Preceding Chapters.

Uncle Michigan, an after the war rebel soldier living with another old Confederate captain in the Louisiana swamps picks up Aurelie, a baby girl, astray from an orphan asylum, on the streets of New Orleans, mistaking her for a boy. The old soldiers have been looking for a boy to bring up and educate that he may revive and lead their lost cause. They bring her up to young girlhood and Uncle Michigan and Aurelie find themselves settled near the Iowa river town of Rome with John Lindstrom, a quarry hand, who becomes soured and turns against the world because he is unjustly sentenced to a day in jail for contempt of the court of Judge Van Hart, Harlan's father—Harlan loves Aurelie and meets her outside the village in the evening and induces her to go with him to his mother to confess their attachment.

Wiley Curran, the town printer, helps Aurelie win the beauty prize offered by a metropolitan paper.

(Continued From Last Week)

The next day he took Aurelie over to Earlyville. Bravely he faced the stares along High street. As the bobcar jogged to the Junction, where it connected with the interurban, the Van Hart surrey drove past them. Mrs. Van Hart was in the rear seat. Aurelie sat back against Wiley's arm and then, conscious that he noticed it, she sat forward very straight and stared full at Harlan's mother. The surrey drove on, the lady composed and with kindly elegance, apparently not seeing them. Aurelie sighed and said nothing, but said nothing, but Wiley guessed her tumult. She was very silent when they were in the tiny office back of the place where tickets were sold at the Majestic, the ornately impressive vaudeville house in Earlville, across from the equally ornate Elk's club. And if you wan to see what architects can do in yellow sandstone, see the Earlville Elk's club.

In Morris Feldman's office, young Mr. Hanbury, of the Dubuque Register, one time sporting critic, ex plained his play modestly: "I don't claim this piece of mine is any world-beater; it'll never see the great white lights, and Frohman will never get the wires hot trying to book us, but that's all right. We're after the kush, ain't we, Morris?"

"The what?" gasped Miss Lindstrom.

"The coin," corrected Morris Feldman, "the money, Miss Lindstrom."

"I ain't saying Belasco'll go nuts when he sees our production," went on the playwright, "but we're going to clean up the one-night stands while the public is ripe on you. Ain't I right, Morris?"

The gazelle-eyed young Hebrew held a bunch of blue tickets in his teeth while he slipped a rubber band about them and then deposited them in a tin box: "Believe me," he murmured.

"And if we ever put over that third-act situation with you climbing over the mill-dam, Miss Lindstrom, you're made."

"Believe me," added Morris, "and here come our angels."

Now, Hen and Ben McFetridge, coming in from a Main street billiard hall, each with a bad cigar and a red necktie, were not exactly of the celestial choir. They crowded into the box office and felicitated, and offered chairs and rubbed hands.

"I was telling Morris, here—and Miss Lindstrom, the show's a bird," went on the author genially. "Miss Lindstrom, I want you to read the script right away before we get the people together for rehearsals."

"But I"—put in Miss Lindstrom flutteringly—"can't act!"

"Neither can any of the rest of 'em. All these hothouse stars are traveling on their reps. Acting died with Joe Jefferson. What you do now is to go around and hand out the bunk, and the rawer it is, the more the public falls for it. And here the biggest paper in Chicago has been handing it out for you, Miss Lindstrom, the warmest line of talk that any actress ever stood for. She's made, ain't she, Morris?"

The fat-legged young Hebrew, for all the world like a prize calf, waddled about and murmured to the box teller. Hen and Ben poured out their cigar fumes; Wiley lighted his pipe, and they all smoked the histrion-to-be until her eyes watered.

They all claimed credit for "discovering" her. Young Mr. Hanbury, of the Dubuque Register, went on praising his handiwork, and again Aurelie put in: "Oh, Mr. McFetridge, I don't know how to act!"

"Leave it to us," ruminated Hen.

"Walk right out in front and slip it to 'em," cheered Ben. "The yokels will be so dead crazy to see the $100,000 beauty that they'll forget you can't act."

"Oh!" she murmured, and gazed at Wiley T. Curran.

"I rewrote the big third act soon as Morris, here, told me you couldn't act," went on young Mr. Hanbury encouragingly. "All you do is to come in and look dazed and take the spotlight for a minute right at the climax, and then Miss Norman and the heavy, they run in and grab the situation. You see we give Miss Norman most of the fat stuff."

"Oh!" said Aurelie faintly.

"Yes. There ain't many girls like Miss Norman who'd stand for you taking all the paper while she does all the work."

"You don't hardly have to open your face," added Ben consolingly.

"They'll all feed up to you," added Feldman.

"Wait till we get to Dubuque and have a reading rehearsal," concluded Mr. Hanbury.

"And wait till you see the clothes we give you in act two," said Hen. "Ballroom scene. You discover that maybe you're the bank president's daughter."

"Oh!" her eyes appealed to them—what it was all about she didn't in the least know.

"But the detective swears you're the daughter of the big dip who was operating among the guests in a dress suit. Then—zing! You confront him and deny it—he brings the dip on whom he just pinched in the anteroom and you do the big flop."

"The what?"

"Faint. See?"

"N—no."

"Miss Lindstrom," put in Morris Feldman, "believe me—don't listen to these re playwrights. Mr Gratz, the stage manager, will see you're coached. We're going to take you to Dubuque tomorrow, and Miss Norman, she'll help you, and don't get cold feet on this. We're out to grab the one-night stands while the jay towns are still talking about you, and we don't care much what the play is."

"But remember," warned young Mr. Hanbury, "any time you don't know what else to do—faint. Then we'll jump the mob on, pull a quick curtain, and the hicks out in front will think it's great. And Gratz will blow up something off-stage. You see—" went on the playwright confidently, "I wrote the piece that way—loose!"

"But, oh, Mr. Hanbury! When they find out I can't act—"

"Miss Lindstrom," put in Morris Feldman complacently, "they'll never find it out until we're beating it to the next town."

"Beat it in and grab the money, and beat it out—" corrected Angel Hen McFetridge joyously.

"Just a joy ride all the way," chirruped Angel Ben seraphically.

The future star seemed dazed. She bit the end of her frayed little glove. Wiley Curran looked nervously at her: "Hen," he said sadly, "this is simply awful!"

"I guess it is. Worse than cow tracks. But the rubes are just spoiling to be stung. And now we're all going to have lunch at the Metropole to meet Miss Norman. We're going to advance Miss Lindstrom one hundred dollars so she can get some traveling clothes. Maybe"—he added delicately—"she'd like to shop this morning."

One hundred dollars for clothes! She looked helplessly at Mr. Curran. But here was Angel Hen McFetridge calmly counting out the bills. She didn't know what to do—she sat fingering them and staring. And then she murmured some thanks and was out in the sunlight with Wiley, blinded by the effulgence of the money and its magic.

The conspirators back in the lobby looked after her. "Nice girl," sighed young Mr. Hanbury. "Got me dippy."

"Young man," warned Ben, "you ain't no playwright when we get started—you're only the advance man. Don't let her worry you. You blow over to the Mercury-Journal and slip 'em half a column. And slip in something about me and Hen cleaning up fifteen thousand yesterday on Tulare oil up five points. It reads good."

Morris Feldmen's calf-like face was put through the box office window: "Now, easy on this oil talk with the papers. We're troupin' now, and don't queer the show."

And after the McFetridge twins had gone, Mr. Morris Feldman hunched young Mr. Hanbury in the ribs. "Don't get so sloppy about the girl before these two fatheads from California. Keep off their route. Let 'em unhusk. What we want is for 'em to loosen right down to their shoe tacks."

Young Mr. Hanbury sighed. He was far too young to write plays even if he was sporting critic of the Dubuque Register. "But they can't have the girl," he murmured, "I'm dippy about her. Morris, she's going to be it! I'm stuck on her, Morris." He took out the second act and looked over it and sighed again—"Ain't you?"

"In a month," answered Morris solemnly, "soon as she gets to know how to wear the clothes these two blobs from California are going to buy, that girl is going to pull the whole show away from Norman—act or no act!"

And the next day they went away in a chair car up the valley; nine of them, the two angels in red neckties, the playwright, the leading man, the juvenile, the heavy and the star. The actors were all very pleasant, which was right, seeing that they had been stranded in Earlville for a week and none of them could get their baggage out of the hotels until the McFetridges advanced the money. So they were all very pleasant, the second woman chewing gum and reading a dramatic review, and calling Aurelie, "Dearie." The rest of the histrions sprawled about over the seats, rather unshaven and dowdy; while the heavy man told Aurelie all about his wife and two babies, and the petunias they raised in a window-box last summer when they were playing in stock in Toledo. And by and by, for he knew she had had her salary advanced, and no one else had, he confidently borrowed two dollars. And that night the pink-cheeked juvenile told her about the hit he made in Denver in summer stock, only now he was crazy to get back to Broadway and sign up with Frohman, and he borrowed two dollars.

And the next day, after the reading rehearsal, when the others were there, from Chicago, and they all sat about forlornly on boxes and wheezy chairs on the cold dark stage, listening to young Mr. Hanbury read "The Beauty Winner"; while carpenters mauled and hammered in front of the curtain, the leading man came to Miss Lindstrom. He was gently humorous, even with his sad eyes; and he said apologetically: "Miss Lindstrom, you know my wife? Yes—that girl in gray—Miss Frazier. Well, you know I sent her every cent I had to come on and join us—and she had to leave every rag she's got in a North State Street boarding-house. You see the poor kid's been up against it all season since "The Rounders" failed. Well, I don't know any of these people, or the McFetridges, or I wouldn't ask you . . . but could you let us have ten dollars till pay-day?"

He saw her eyes flush with sudden tears, and she gave him twenty, and a smile that haunted him all the gray day's work. She knew, so well how it was!

"Little girl," he whispered softly, w"e're a bunch of hard troupers, but you made a hit with us. You don't need no prize face—you'll do!"

CHAPTER XIII.

Mr. Curran Also Has a Vision.

The brown and stately autumn faded to the first bleak coat of winter. The hills grew clear in outline, and over the sycamore, elm and linwood, patches of the distant river showed. One saw lonely roads rising from the black bottoms to the gashed bluffs where summer had robed this nakedness in green, and down these came the farm wagons miring under loads of yellow grain. At the cribs the droning shellers' song mingled with the roar of the quarry crusher, and this not unpleasing duo of industry was in the village's ears week long. Every one was autumn busy, what with the husking, the hog-killing, the spreading of fertilizer and the hauling of wood.

Curran was busied also with a rush of holiday job-printing. He shortened his editorials and stole personals from exchanges to have time for this bread-and-butter work. Janet found him so when she came in with the program of the county teachers' institute. He declined to print it before Thanksgiving. "But the News does need the money!" he concluded. "For, Janet, the News is going to run for congress!"

He was happy as a boy over it. He had been seeing a number of people, he assured her. "Surprised 'em! It seemed quite a novel idea! But do you know it's much as aunty says. For fifty years the News has given columns—free advertising and ticket printing to every church fair, raffle, oyster supper, and what-not in the county—boosted all the benefits and lodges, welcomed the labor unions over around Earlville, pleaded for the farmers' co-operative association, and all that—and never asked a thing from any one. And now when I go to these men—just the run of workaday men—and tell them I'm going into the primary against Jim Hall, they look surprised and then say: 'Why, of course, Wiley!' Just as if we all ought to have thought of it before!"

"Of course!" she smiled gravely. "What did I tell you?" And she did not subdue the pride in her voice.

He was cleaning his hands of the printer's ink to go up the hill to his supper, talking eagerly all the time. Janet must come up and see the new window-boxes he had made for Aunt Abby's primroses, working nights and between times; and presently she found herself, as of old, going with him laughingly up the path back of the shop.

"I'm not a dead failure!" he declared. "If only a man comes to have a sense of his place and work somehow things appear brilliantly easy. You see, before, I never stopped to inquire anything. Life appears simple enough to a man who has but two shirts—he takes off one and puts on the other! And that's all I've been doing here in Rome, Janet—till now."

"And now?" Her serene glance was on him as they reached the crest by the fence. He suddenly caught her hand and lifted it to point away over the town, the twilight country, the veiled immensity of night. Here, there, a lamp shone in a house; instantly a light twinkled, and far off on the still land one caught yet another.

"Their homes," Wiley whispered—"theirs! The people whom you wish me to go to—the rough-coated and silent farmers driving into town, toiling away, but thinking, too. You wanted me to go among them, tell them that I—Curran of the News, was of them, and would fight for them if they would let him! That what they believed in and honored, he believed in and honored. Janet, I stop here every night on my way up from the shop and draw in the air—this fine air of the country, and watch the lights come out in those far-off farms on the hillsides, and a vision comes to me of them all—their homes and lives and destinies. I see it all and understand, and it's as if they were calling me—as if there were work and place for me!"

Janet nodded slowly. Her fond smile came. So well she knew him! It had to be that way with him—an appeal to his imagination, his heart, his undefeatable and simple romance. Well, so good. She would be practical for him; she would find the way. He stopped now with a sudden rueful curiosity.

"What's this I hear about you being asked to go out and speak in the national campaign for women's suffrage—the big fight in some of the states?"

"I was asked." Janet looked away. It had been an anticipation come true. She had her eyes on wider horizons; she had felt the supreme pleasure of efficiency, of power recognized. She went on calmly: "But I declined it, Wiley, this year."

He watched her face in the dusk. "I know why," he retorted abruptly. "It was to stay here and help me."

"Yes."

He was silent. Some consciousness of her bigness, of the richness of her life, was finding way into his vision. It was portion of his new delight in all this buoyant modernity, just as he had awakened to kinship with the Midlanders, stern with the sense of patient and long-enduring wrongs, and needing leadership. His esthete's indrawing, his dabbling with art and affairs, had got him nothing; life had rebuffed him, but now he had come upon realness. Janet suddenly typified all this; he saw her and with her all women as the new enfranchised companions of men, the efficient helpers and counselors.

"By George!" he broke out. "You're coming on so grandly, Janet! I always guessed at it, but you've grown so—'way beyond me!"

(To Be Continued)

POULTRY.

SOME WHITE LEGHORNS OF HIGH DEGREE.

By J. Olin Howe, Waterbury, Conn.

"BARONESS IV," an English White Leghorn pullet, has broken the record for individual egg-laying in the second international egg-laying competition at Connecticut Agricultural college, laying 282 eggs in the year. This is one egg better than the record established by an American bird in the Missouri contest in 1912, "Lady Showyou" laying 281. The five hundred birds led by "Baroness IV" came from various states, Canada and England, and the best American bird, a Connecticut White Leghorn, was not so far behind with 267 eggs for the year.

"Baroness IV" is in the pen of Thomas Barron, Catforth, England, which led the hundred pens from the start and finished with the wonderful score of 1190 eggs laid, an average of 238. Every bird laid more than 200 eggs. The leading American pen, White Leghorns also, belongs to W. L. Sleeger, York, Pa., and the five birds laid 1029, averaging 206. This pen is in third place among the hundred, an English pen of White Leghorns entered by Edward Cam, Houghton, England, taking second place with 1108.

The Sleeger Leghorns did some unusual laying. In April, May, July and August the quintette were first in the monthly scores and in June tied with Baron's pen for third honors. In May the Quaker pen broke all records with a total of 141 eggs, an average of 28 each in 31 days, and in the five months named its No. 4 bird laid 143 eggs in 153 days. In the week ending May 15 these Leghorns tied the Rhode Island Reds from Colonial Farm, Temple, N. H., for the contest weekly record, 33 eggs, and this was equalled but once, by White Leghorns belonging to O. A. Foster, Santa Cruz, Cal., in the 33d week.

Barron's pen figured in the monthly medal scores more often, even, but took first only in November. The English Leghorns were second twice and third three times. Consistency marks its record. The five birds laid 11 eggs the first week and until the 48th, each pullet never failed to lay, with the exception of No. 3, which was idle from the 8th to 12th weeks, inclusive.

Below the first three pens the leading 12—really 13, for two are tied for tenth place—rank as follows, four being English, one Canadian and eight from various states; fourth, Edward Cam, White Wyandottes, 1009; fifth, O. A. Foster, White Leghorns, 997; sixth, Colonial Farm, Rhode Island Reds, 968; seventh, Frank Toulmin, Burnley, England, White Leghorns, 954; eighth, W. B. Canby, Downington, Pa., White Leghorns, 952; ninth, Mrs. H. F. Haynes, Shoup Idaho, White Wyandottes, 951; tenth, Burton E. Moore, Winsted, Conn., White Leghorns, tied with Beulah Farm, Stoney creek, Ontario, White Wyandottes, 945; 11th, Smith Brothers, Addingham, Pa., White Leghorns, 934; 12th, F. A. Jones, Northumberland, Pa., White Leghorns, 928. It will be noted that there is a preponderance of White Leghorns, but there were 47 Leghorns pens in the hundred, of which 43 were Whites, and in this leading group there are three pens of White Wyandottes and one of Rhode Island Reds.

The Leghorns have been exceptionally prominent, but the heavy laying has by no means been confined to that breed. One remarkable record was made by a Barred Plymouth Rock from Woodside Poultry Farm, West Philadelphia, which last spring laid 61 eggs in 61 successive days. The Beulah Farm pen of White Wyandottes leads the Canadian entries, this pen succeeding that which took second place in 1912.

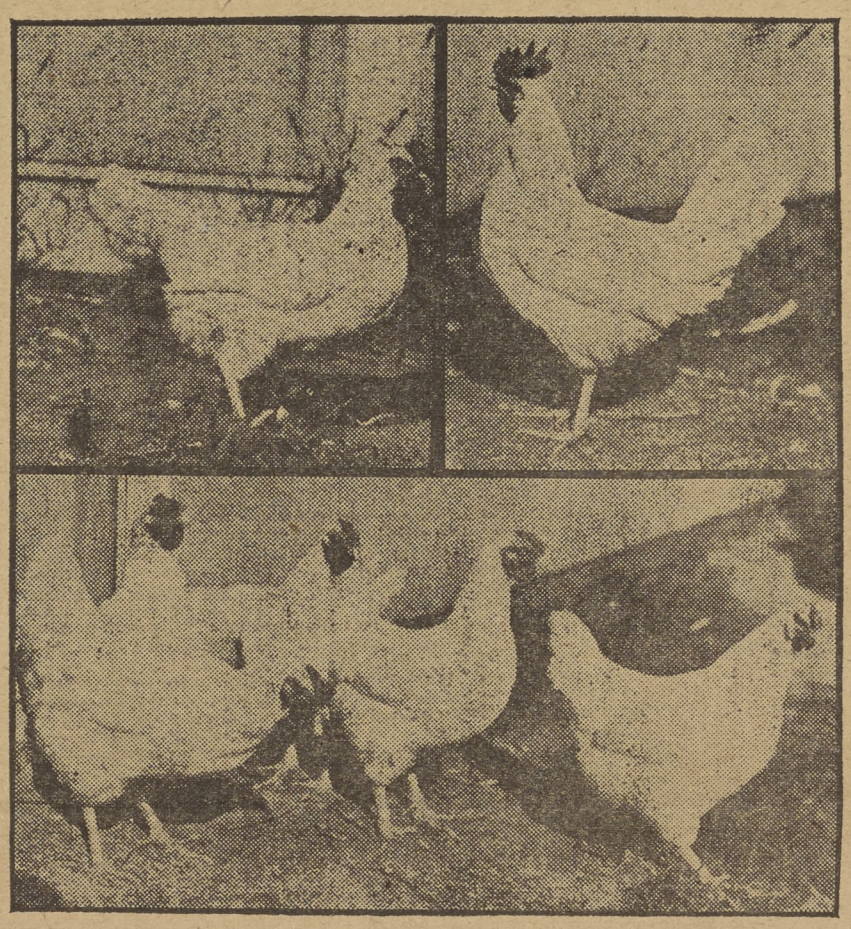
Another specially good Wyandotte pen is that of Mrs. Haynes from Idaho. These six birds, five layers and one reserve bird, were selected from but 16 pullets, traveled by pack horse 40 miles to reach a railroad and laid eggs the day after their arrival at Storrs. Mrs. Haynes bred five birds to average 190 eggs without ever seeing any White Wyandottes but her own.

The Colonial Farm pen leads the Rhode Island Reds and has pulled up remarkably in the closing weeks, No. 4 and 5 in this pen finished with 245 and 248 eggs, respectively, and the former laid every day in August. Altogether 66 birds laid 200 eggs or more in the year and the high cost of living got a hard knock, for when these five hundred birds—which laid a total of 77,916 eggs, an average of 156 per layer—are distributed through the breeding stock over the country the average annual production per hen, now about 80 eggs, should rise.

The third international contest, starting immediately upon the close of the second, includes birds from as widely distributed points and is the first conducted by the department of agriculture through the federal experiment station at Storrs and the college without outside connection. The Philadelphia newspaper which has been previously concerned will run a contest of its own. In this third contest pens have ten birds instead of five and the experiment station enters a group of pens of its own stock for interesting feeding experiments.

THE STANDARD VARIETIES OF DOMESTIC TURKEYS.

THE Spaniards have the credit of taking the turkey from Mexico to Europe. Mr. Dixon says that they first reached England in 1525. From the Mexican variety the turkeys of England were bred, and what is known in England as the Norfolk variety we call the Black turkey. Quite likely this variety came from England to us, and was used as the foundation for the cross with our wild turkeys to establish or create the Bronze turkey. Audubon says that to his own knowledge the wild turkeys would come from their haunts and feed and breed with the domestic or tame turkeys, and the half-bred birds were finer in size and hardier in constitution than the domestic stock. To this day we strengthen the blood line of our Bronze turkey by making a cross with the wild turkey. The influence of the light markings of the Mexican turkey is shown in the plumage of some of our domestic varieties.



Upper left—Baroness IV, 282 in a year; upper right—White Leghorn hen, 267 eggs, leading in America; Mrs. Haynes, Idaho, White Wyandottes.

Six standard varieties.—Six standard varieties of turkeys are more or less grown in this country, viz, Bronze, Narragansett, Buff, Slate ,White and Black. The main differences are in size and color of plumage. The Bronze and the Narragansett are the largest, the Buff and Slate are the medium, and the Black and White the smallest. Of late so much improvement in size has been made in the Whites that they have moved up to contend for third position, some of them having passed the 30-pound mark. The same statement may soon be made of the Blacks, as they have greatly improved during the last few years.

In addition to the foregoing there is a nonstandard variety known as the Bourbon Reds. They might well claim the position now held by the Buff turkeys, being quite like them and more largely grown for market than are the Buffs. There is scarcely enough preference shown in the open market for any one of these varieties for table use to cause it to be favored in production of turkeys for market. There is, however, a strong preference at all times for the best-grown and best-finished specimens of all varieties. In Rhode Island, where the highest quality is produced, there does not seem to be much preference for any particular variety.

Rain is almost fatal to very young ducks.

Write us of your poultry experiences. Every bit of information that you pass on will help some brother poultrymen.

SOMETHING ABOUT RABBITS.

By Courtlandt P. Gilmore, Watsonville, Cal.

IN reading over the poultry papers of today; you, no doubt, have noticed a no small amount of space devoted to rabbits; their case, etc. Why is this, another boom? not much, the fact is that the American people are beginning to realize the true value of this little animal, especially so since, beef is becoming more scarce and higher-priced every year.

I feel safe in saying that in the next few years, the rabbit will prove to be a strong ally, to the meat end of the poultry industry, there is no breed of chickens that can be brought to the weight of four to five pounds in three months, nor is there any, that can be raised so cheaply, and with so little trouble, for I have found that they do not require near the care that chickens do, but right here let me say, that, they are not as easily kept, as some of the breeders would have you believe. They say that all you have to do is to feed them a little grass or hay once a day and clean out the hutches once a week, and take in the money—something like the poultry concerns that advertise, how any one can make $3000 a year off of your back lot, during your spare time, etc. Now all honest breeders will tell you quite a different story—it takes, time, study and proper attention, as does any business to be successful.

The rabbit is a clean, dainty, little animal, living upon clean foods only, consequently producing meat unrivaled in purity, flavor and high protein, government reports of analyses give us the following: Rabbit .83 per cent digestable nutriment; beef, .55 per cent; pork, .75 per cent; mutton, .65 per cent; chicken, 50 per cent. Rabbit meat is highly recommended by physicians, and is used to a large extent in the hospitals of the coast. The west (with the exception of Los Angeles and vicinity) is far behind the east, in the use of rabbit meat, but ere long you will find a hutch or two of rabbits in nearly every family's back yard.

Then besides the meat there is the fur, as every one nows wild fur-bearing is becoming more scarce every year, consequently the fur houses are paying more than ever before for rabbit furs. The most valuable furs are, the Silver tipped, and Black Flemish, the New Zealand (which is sold for Red fox) and the white. At the present time much of the hair is used in finishing men's hats. If you will take a little more time and skin the rabbits properly, then treat the pelts with salt petre and alum there are no end of uses that the ladies can put them to, especially so this season, as there are so many of the fall and winter dresses trimmed in fur.

There is a good market for all kinds of feathers. Pick fowls dry and sort feathers, the coarse from the fine. They can easily be preserved until enough are collected to take to market.

FIRST STEP TO POULTRY SUCcess.—feed Croley's Infant Chick Feed. Raised more healthy chicks than all other feeds combined.

Coulson's POULTRY FOOD

A Quick Molt

You want a well balanced ration of good strength in Protein like Coulson's Egg Food to get through the molt quickly and get your share of eggs in the fall. Write us for Free Book, "Chickens from Shell to Market" and name of nearest dealer.

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MR. POULTRY RAISER:—

WHY NOT SHIP YOUR POULTRY TO PEOPLE WHO MAKE A SPECIALTY OF HANDLING POULTRY?

We are not SPECULATIVE DEALERS, who sell at ONE PRICE and remit at ANOTHER. We do a strictly commission business, remitting at actual sales (or at such prices at which your stock sells). When placing your poultry with us to sell you place it among competitive buyers, thus assuring sales at full market value.

The General Market price, or at which our sales were made week ending Nov. 8, 1913, were as follows.

	Per lb.		Per lb.
Broilers, under 1½ lbs.	27@30c	Small Hens, under 3 lbs.	15c
Broilers, 1½-2 lbs.	23@25c	Medium Hens, 3-4 lbs.	15@16c
Fryers, 2-3 lbs.	19@20c	Large Hens, over 4 lbs.	16@17c
Young Roosters, 3 lbs. over	18c	Young Pekin Ducks	20@22c
Live Young Turkeys	22@24c	Fat Young Geese	15@16c
Dressed Young Turkeys	24@28c	Squabs, per dozen	$2.00@3.00

Broilers not so plentiful and prices are firm. Good hens are in good demand. Ship to arrive Tuesdays, Wednesdays and Thursdays of each week. CULLS AND POOR STOCK sell on their merits.

We especially want your shipments of Live and Dressed Turkeys each week. Will need 5000 head for Thanksgiving trade.

We handle more poultry on consignment than any two houses in San Francisco. WHY?

This advertisement will appear in this paper exclusively for one year, and will be our method of quoting as nearly as possible the poultry market in general.

We solicit your correspondence by wire or letter.

(Mention this paper)

ORIGIN AND HISTORY OF THE TURKEY; ITS CULTIVATION A DIFFICULT TASK

Popular Fowl Probably Native of America but Authorities Disagree.

White Faced Black Spanish One of the Oldest of Pure Bred Fowls.

By Michael K. Boyer
Poultry Editor of The Farm Journal.

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The turkey is an ever-interesting subject to students of poultry. Its origin is veiled in mystery though most authorities agree it was found in America by the early discoverers.

It is today the most popular Thanksgiving and winter holiday table fowl, but many experts fear it is doomed to extinction by reason of its domestication and the disappearance of forests. The habits of the bird and the difficulties of breeding and raising are interestingly told by Mr. Boyer in the accompanying article.

Mr. Graham, this week, gives some sidelights on the history of the White Faced Black Spanish, one of the oldest of pure bred fowls.

JUST how the turkey originated, and why it is known by that name, is not told in history. Much of the data we have at hand is theoretical. It is pretty well established that the turkey belongs to the guinea family, and that it is an American product, as the Spanish discoverers of America found it here in a wild state.

It has been said by some old-time writers that the bird originated in Turkey, hence its name. But this has not been proved, and the bare fact that it was found in a newly-discovered world shows that it must be a native of that section. It is a theory that the name "Turkey" was applied owing to the repeated call-note of the bird, viz: "Turk, Turk, Turk."

When William Bradford was elected to the office of Colonial Governor, in Massachusetts, which office he held from 1621 to 1637, he set aside a day each year for prayer and rejoicing for the early settlers in New England. From that time this day became known as Thanksgiving. There must be an extra feast on that day, but just what meat should adorn the festive board seemed to be confusing to the colonists. Every kind was suggested, but, strange to say, notwithstanding that the woods were full of turkeys, no one thought of that bird. Finally it narrowed down to the selection of the wild fowl, and ever since that time turkey has been associatel with the Thanksgiving feast.

Turkey Not Tamed.

Domestitication has not done much in taming the turkey. Its shy and timid nature clings to it, but it is less watchful than in its wild state. Being of a roving disposition, it does not thrive in confined quarters, and when given its liberty will travel for miles, feeding upon nuts, grasshoppers, bugs and other food found on the range.

The decline of the industry in Rhode Island—which for years has been famous for the production of this favorite holiday bird—is claimed to be due to the scarcity of grasshoppers. For years these insects were so plentiful that grain crops especially would be annually destroyed my them. Gradually, a sthe turkey crop increased, the grasshopper crop decreased, and from the moment of this condition a decline in the industry resulted.

The hen turkey is more gentle and mild than is the cock bird, and, in wandering about with her young, is on the constant watch. With the least cause for alarm she sends out the warning and the young scamper in all directions, but the hen makes no effort to defend them against enemies.

On the other hand, the gobbler is a gallant defender and a hard fighter. At night, should be deem extra protection is needed, he will hover over the young, often taking exclusive charge of them.

In their wild state, turkeys travel largely in flocks, and this custom is followed to a considerable extent by the domesticated stock.

Popular Breeds.

The most popular breeds for market culture are the Bronze, Narragansett, Black and Wild species. Horace Vose, probably the most noted authority in this country, claims for the Narragansett that it leads as a utility fowl, especially recommended for its full breast, strong, vigorous nature, and its compactness of body. The Bronze is a close second, followed in order by the Black, Wild, White, State and Buff varieties. The Bronze turkey is probably the most popular and most extensively bred.

It is generally accepted that of all kinds of domesticated poultry, turkeys are the most difficult to rear. In the early stages the young require special care until they pass over a period generally known as "Shooting the red." This fact has probably deterred more farmers from going into this branch of poultry work than anything else.

Hatching and rearing are done in the natural way; experience proves that incubators and brooders are very unsatisfactory.

The crop of the turkey chick is very small, and, consequently, it must be fed little at a time but frequently; every two hours for the first week is not too often. For the first three or four days, feed hard boiled eggs mixed into bread crumbs or coarse oatmeal. After that period the egg part may be stopped, although it generally is advisable to keep it up for a week at least. Onions are greatly relished by the young and are highly valuable to them, if chopped fine and kept constantly before the birds. Meat is another essential, and so, also, is green food, young lettuce being the best.

This method of feeding should be kept up until they are about two to two-and-a-half months old. After that they can be put on the grass and supplied with plenty of good food, mostly soft, with some grain occasionally at nights.

Airy Roosting Places.

The roosting place should be apart from other poultry, freely ventilated, but not draughty. An open shed, with the three sides made draughtproof, and the front covered with wire netting, so as to keep out dangerous animals, makes an ideal house. In these houses should be placed perches at least three inches broad, and without sharp edges.

From five to ten hens can be mated to a gobbler. Pullets in their first year should be mated to a male in its second year, while hens over a year old are best mated to a vigorous cockerel. The turkey cock reaches maturity after the molt in its third year, and from then on its not reliable as a stock bird.

The hen prefers choosing her own nesting place, and generally where she lays her first egg she will continue to lay. As a rule, the hen lays from 15 to 20 eggs and then becomes broody.

Turkeys are subject to all diseases which attack other poultry, with the addition of Blackhead, a disease claimed to be purely an American affliction.

Roup is the most common, the treatment for which is generally the same as for other fowls. Worms and lice are great destroyers of the young. Blackhead, bumble foot and liver disease, are also more or less in evidence.

One of the most fatal acts is to inbreed. Nothing that can be done will claim more weak and ill-conditioned stock, and the offspring naturally, become easy prey to disease.

Cleanliness Necessary.

Cleanliness is important in preventing sickness. This not only includes clean roosting places, but also clean feed and pure and clean drinking water. Feeding sour milk or buttermilk is a fruitful cause of diarrhoea, a fatal disease. Young turkeys must be kept out of the wet. All sick birds should be isolated from the healthy.

It is important to properly market turkeys. Those intended for the Thanksgiving holidays will find the best sale when weighing from 15 to 20 pounds each. During the winter 18-pound carcasses sell best, while for Christmas the more sought after weight runs eight or nine pounds for hens, and 12 to 14 for toms.

No ice should be used in packing the carcasses for shipment. Use nice clean boxes, lined with clean paper, and place the fowls, breasts down, with the necks turned underneath. Paper should be wrapped around the heads to prevent blood stains on the carcass.

In November, the turkeys intended for market should be given all the whole corn they will eat. Never coop them while fattening.

CONTENTS OF EGGS.

Hens' eggs contain 50 per cent water, 16 per cent protein, 33 per cent fat.

Ducks' eggs, 46 per cent water, 17 per cent protein, 36 per cent fat.

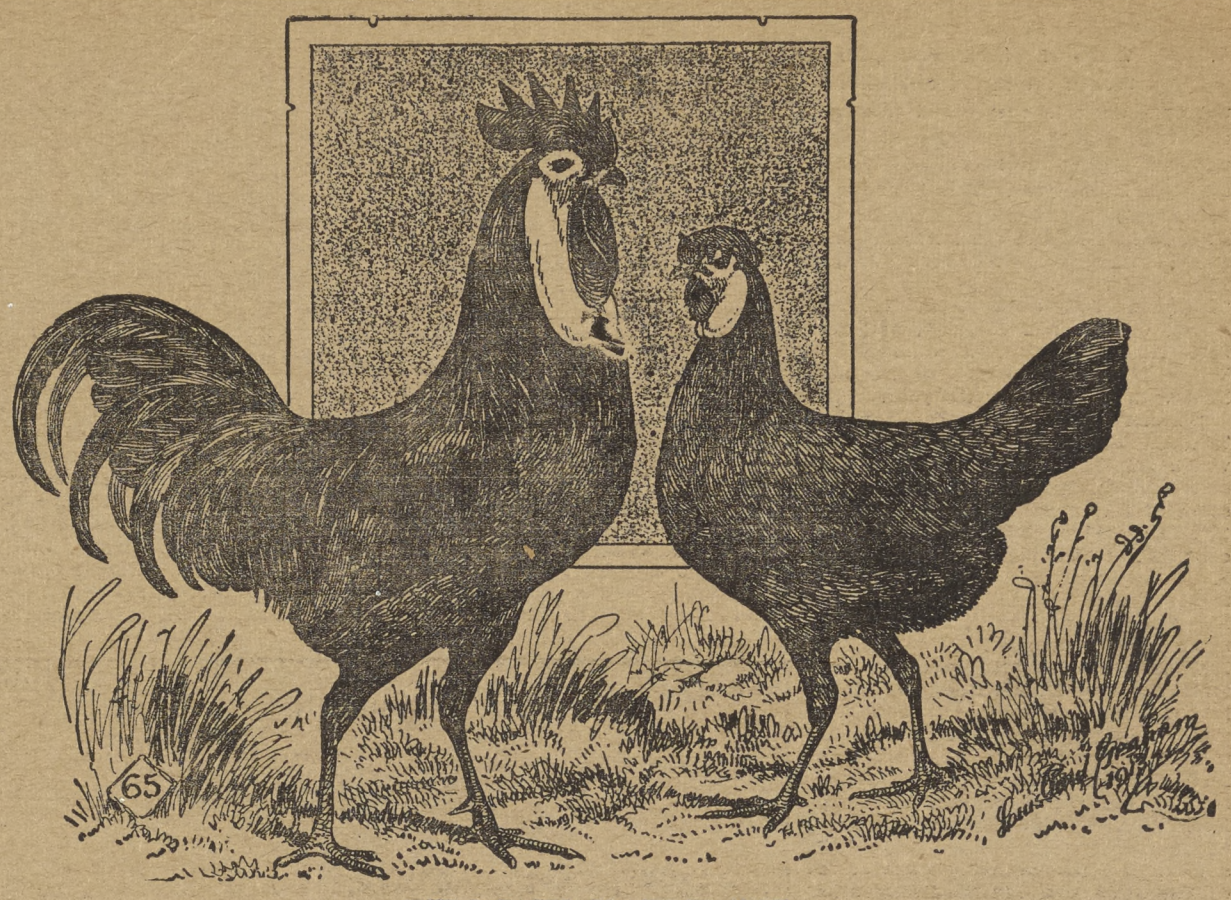
Goose eggs, 44 per cent water, 19 per cent protein, 36 per cent fat.

Turkeys' eggs, 48 per cent water, 18 per cent protein, 33 per cent fat.

Protein, as is generally known, is the substance that goes to make muscle and blood. Fat, of course, is fuel for running the body-machine. Thus, it will be seen, eggs, though half or nearly half water, are extremely nutritious, containing all the elements required for the building up and support of the human body.

Get a regular private trade for your eggs.

Grade eggs according to size and color.



WHITE FACED BLACK SPANISH.

This is probably one of the oldest of the laying type of purebred fowls. They lay a large handsome white egg and are credited with producing them in large numbers. Their rich, glossy, greenish black plumage, large red comb and wattles contrasting strongly with the long, pendulous white face, makes them attractive and distinct among our many breeds. The fowls are moderately large, weighing from 6½ to 8 pounds for males, 5½ to 6½ pourds for females. The hen is a non-sitter and their eggs must be hatched by other hens or artificially.

The Oldest of the Laying Breeds

By Louis Paul Graham.

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The White Faced Black Spanish is one of the oldest of our known breeds of poultry. Records show that they were bred in Holland and England for centuries. It is accepted by poultry authorities that the present White Faced Black Spanish fowl undoubtedly is descended direct from the Castilian fowls of Spain, but it is contended that the white faces were produced by either the early English or Dutch breeders or both. Inquiries and observation show that the White Faced Black Spanish fowl, as we know it, is unknown in Spain except in the hands of breeders who have imported them from England or Holland.

The native fowl of Spain, the Castilian, resembles in form, color and laying qualities both the Spanish and Minorca and these two were undoubtedly produced from foundations of pure Castilian fowls.

Black Spanish fowls enjoyed a wide reputation as heavy layers of large white eggs, and were universally bred for that quality until the coming of the Brown and White Leghorns as rivals.

They are rather large fowls, and have brilliant greenish black plumage. The combs are medium large, and, in the hen, fold over to one side of the head. Their skin is white and legs dark slate in color, but their most striking feature is the white face.

Peculiar Types of Faces.

This is characteristic of both sexes, but is most developed in the male. The face, usually red on other breeds, is pure white, throat white with long pendulous white earlobes often measuring 7½ to 8 inches from top of face to lowest point of earlobe. In breeding these fowls for fancy, great stress is laid on the production of the longest, whitest and smoothest "faces," and big prices have been paid for specimens possessing these features in an extraordinary degree.

In the height of their popularity American money was freely spent to import the finest of the English [illegible] and competition in the showroom keen. The difficulty of producing t[illegible] extraordinary "faces" was really the downfall of the breed. The average breeder could not produce them and turned naturally to the Minorca, which has a red face (more easily produced), and in other respects, laying, size and color, was quite the equal of the Black Spanish.

Today the White Faced Black Spanish is regarded as a rare variety and is bred by a few old fanciers who have had them for many years and never lost faith in the qualities of this remarkable fowl.